

Rehabilitation for chronic neurological disorders including acquired brain injury

[N] Evidence review for support for social participation

NICE guideline NG252

*No recommendations were made from this evidence review
October 2025*

Final

This evidence review was developed by NICE

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Support for social participation

Review question

What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Introduction

Supporting people with a chronic neurological disorder (CND) to feel fully integrated in society is central to any rehabilitative approach, and yet often fails to be a focus. To live a fulfilled life, there is a need for an individual to be able to participate in meaningful activity or occupation, have opportunities for recreation and leisure, and possess effective community living skills. Also, at a personal level, an individual needs to be confident in dating and romantic relationships and participation in sexual activity. The sequelae of a CND may cause failure in any or all of these areas and crucially interfere with a sense of fulfilment in life.

The degree to which there is assessment of need and then intervention to help individuals in these areas of function appears to be patchy. The committee was therefore keen to understand the evidence available for practitioners and to refocus attention to these areas, which are so important for fulfilled independent living.

The aim of this review was to determine the effectiveness of rehabilitation interventions to improve and maintain social participation in people with CND.

Summary of the protocol

See Table 1 for a summary of the Population, Intervention, Comparison and Outcome (PICO) characteristics of this review.

Table 1: Summary of the protocol (PICO table)

Population	Adults and children with rehabilitation needs due to the following chronic neurological disorders: ○ Acquired brain injury ○ Acquired spinal cord injury ○ Acquired peripheral nerve disorders ○ Progressive neurological diseases ○ Functional neurological disorders
Intervention	● Interventions to support participation in meaningful activity or occupation ● Interventions to support community living skills ● Interventions to support participation in recreation and leisure ● Interventions to support participation in dating and romantic relationships ● Interventions to support participation in sexual activity (including self or partner stimulation)
Comparison	● Interventions compared with others in the same group or: ● Placebo (placebo or sham) ● Control (no intervention, waitlist, standard rehabilitation care alone, or 'usual care') ● The same intervention (as listed under 'intervention') but varied in terms of: ○ Frequency ○ Intensity ○ Timing ○ Setting

Outcomes	Critical: • Social participation (measured using a validated tool, such as the Nottingham Extended Activities of Daily Living [NEADL], or Child and Adolescent Scale of Participation [CASP]) • Personal goal attainment (measured using a validated tool of personal goal attainment such as Goal Attainment Scale [GAS]) • Community reintegration (measuring using a validated, global tool such as the Mayo-Portland Adaptability Inventory) Important: • Physical and mental health related quality of life and social care related quality of life [assessed using validated, global scales, such as the EQ5D - 3L, EQ5D - 5L, Multiple Sclerosis Impact Scale (MSIS-29 v2), NeuroQOL, Quality of Life in Brain Injury (QOLIBRI), PedsQL, SF-36, WHO-QOL-100, WHO-QOL Bref, ASCOT, Warwick Edinburgh Mental Well-Being Scale, Satisfaction with Life Scale (SWLS), and ICECAP-A] • Independence in activities of daily living (measured using a validated tool of global independence in activities of daily living such as COPM, Barthel ADL index, Katz, PSMS, OARS, PAT, EADL-Test, GAS, FIMFAM, TOMS, ABCCS, PEDI-CAT).
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ABCCS: activities-specific balance confidence scale; ADL: activities of daily living; ASCOT: adult social care outcomes toolkit; COPM: Canadian occupational performance measure; EADL: extended activities of daily living; EQ5D - 3L: EuroQoL 5 dimensions 3 levels; EQ5D - 5L: EuroQoL 5 dimensions 5 levels; FIMFAM: UK functional assessment measure; ICECAP-A: investigating choice experiments for the preferences of older people capability measure for adults; NeuroQOL: quality of life in neurological disorders; OARS: older Americans resources and services; PedsQL: paediatric quality of life inventory; PAT: performance activities of daily living test; PEDI-CAT: paediatric evaluation of disability inventory - computer adaptive test; PHQ-9: patient health questionnaire; PSMS: physical self-maintenance scale; SF-36: 36-Item short form survey; TOMS: therapy outcome measure; WHO-QOL: World Health Organisation quality of life assessment

For further details see the review protocol in appendix A.

Methods and process

This evidence review was developed using the methods and process described in [Developing NICE guidelines: the manual](#). Methods specific to this review question are described in the review protocol in appendix A and the methods document (Supplement 1).

Declarations of interest were recorded according to [NICE's conflicts of interest policy](#).

Effectiveness evidence

Included studies

Nine randomised controlled trials (RCTs) were included in this review (Blikman 2017, Borgen 2023, Heine 2017, Jongen 2019, Levy 2021, Nooijen 2017, van den Akker 2017, Veenhuizen 2019, Voet 2014).

The included studies are summarised in Table 2.

Seven studies were conducted in the Netherlands (Blikman 2017, Heine 2017, Jongen 2019, Nooijen 2017, van den Akker 2017, Veenhuizen 2019, Voet 2014), 1 study was conducted in Canada (Levy 2021) and 1 study was conducted in Norway (Borgen 2023). Three of the studies conducted in the Netherlands (Blikman 2017, Heine 2017, van den Akker 2017) were part of the TREFAMS-ACE multi-trial programme (TReating FATigue in Multiple Sclerosis - Aerobic training, Cognitive behavioural therapy, and Energy conservation management).

Five studies investigated fatigue management interventions designed to support social participation in recreation and leisure for people with progressive neurological diseases (Blikman 2017, Heine 2017, van den Akker 2017, Veenhuizen 2019, Voet 2014), and 1 study

investigated a fatigue management intervention designed to support social participation in recreation and leisure for people with acquired spinal cord injury (Nooijen 2017). Two studies investigated interventions to support overall social participation for people with acquired brain injury (Borgen 2023, Levy 2021), and 1 study investigated an intervention to support overall social participation for people with progressive neurological disease (Jongen 2019).

There were no trials reporting data for interventions on supporting social participation for children and young people with chronic neurological disorder. Additionally, none of the included studies reported data from adults with an acquired peripheral nerve disorder or a functional neurological disorder.

Data for the following outcomes were identified through analysis of the included studies:

- Social participation
- Community reintegration
- Physical and mental health related quality of life and social care related quality of life

No meta-analysis was conducted due to heterogeneity in interventions, time points and outcome measurements.

See the literature search strategy in appendix B and study selection flow chart in appendix C.

Excluded studies

Studies not included in this review are listed, and reasons for their exclusion are provided in appendix J.

Summary of included studies

A summary of the study included in this review are presented in Table 2.

Table 2: Summary of included study.

Study	Population	Intervention	Comparison	Outcomes
Blikman 2017	N=86 adults with multiple sclerosis	Energy conservation management	MS nurse	• Social Participation
RCT (Within the TREFAMS-ACE programme)	• Energy conservation management: n=42 • MS nurse: n=44	12 x individual 45-minute sessions over 16 weeks.	3 x 45-minute sessions over 16 weeks.	
The Netherlands	Age in years [Mean (SD)]: • Energy conservation management: 47.7 (11) • MS nurse: 46.6 (11.5)	Dose and duration of the sessions were based on clinical practice, knowledge about time needed for a behavioural change and previous trials.	The content of the consultations: (1) reliable information on MS-related fatigue and (2) guidance from the experienced MS nurse that aimed to reassure the patient that his or her concerns or questions were being taken seriously.	
	Sex (M/F): • ECM: n=8/n=34 • MS nurse: n=14/n=30 Chronic neurological	Protocol intervention group: Interventions to support participation in recreation and leisure		

Study	Population	Intervention	Comparison	Outcomes
	disorder category: Progressive neurological diseases.			
Borgen 2023 RCT Norway	N=120 adults with traumatic brain injury - Home-based, goal-orientated, and individualised rehabilitation: n=60 - Standard care: n=60 Age in years [Mean (SD) not reported] [Median (IQR)]: - Home-based, goal-orientated, and individualised rehabilitation: 45.5 (29.5-54.0) - Standard care: 49.0 (33.0-60.5) Sex (M/F): - Home-based, goal-orientated, and individualised rehabilitation: n=44/n=16 - Standard care: n=41/n=19 Chronic neurological disorder category: Acquired brain injury.	Home-based, goal-orientated, and individualised rehabilitation 8 sessions (home or online [2 hours] /telephone [1 hour]) A SMART goal approach was used. Rehabilitation strategies for goal attainment were then established in an action plan. Protocol intervention group: Interventions to support participation (not a specific protocol intervention group)	Standard care Continued to receive any concomitant care they were already receiving, with no additional treatment.	- Social Participation - Physical and mental health related quality of life and social care related quality of life
Heine 2017 RCT (Within the TREFAMS-ACE programme) The Netherlands	N=89 adults with multiple sclerosis - Aerobic training: n=43 - MS nurse: n=46 Age in years [Mean (SD)]: - Aerobic training: 43.1 (9.7)	Aerobic Training 30-minutes of aerobic interval training on an electro-magnetic cycle ergometer. Sessions were 3x per week over 16 weeks (outpatient clinic [12 sessions] and home [36 sessions]).	See Blikman 2017	Social participation

Study	Population	Intervention	Comparison	Outcomes
	- MS nurse: 48.2 (9.2) Sex (M/F): - Aerobic training: n=11/n=32 - MS nurse: n=13/n=33 Chronic neurological disorder category: Progressive neurological diseases.	Protocol intervention group: Interventions to support participation in recreation and leisure.		
Jongen 2019 RCT The Netherlands	N=158 adults with multiple sclerosis 'Can do treatment': n=79 - Waitlist control: n=79 Age in years [Mean (SD)]: 'Can do treatment': 40 (8.7) - Waitlist control: 40 (9.4) Sex (M/F): 'Can do treatment': n=10/n=69 - Waitlist control: n=9/n=70 Chronic neurological disorder category: Progressive neurological diseases.	'Can do treatment' 3-day intensive social cognitive programme. 2 large group sessions, 5 small group sessions, consultations (carousel), a theatre evening, and start of day joint activity (optional). Protocol intervention group: Interventions to support participation (not a specific protocol intervention group)	Waitlist control	- Social Participation - Physical and mental health related quality of life and social care related quality of life
Levy 2021 RCT Canada	N=13 adults with traumatic brain injury - Ontario Brain Injury Association Peer support programme: n=6 - Waitlist control: n=7	Ontario Brain Injury Association Peer Support Program Peer support programme, 1 session per week for 16 weeks. Protocol intervention group:	Waitlist control	Community reintegration

Study	Population	Intervention	Comparison	Outcomes
	Age in years [Mean (SD)]: - Ontario Brain Injury Association Peer support programme: 50.8 (12.92) - Waitlist control: 35.6 (11.7) Sex (M/F): - Ontario Brain Injury Association Peer support programme: n=4/n=2 - Waitlist control: n=5/n=2 Chronic neurological disorder category: Acquired brain injury.	Interventions to support participation (not a specific protocol intervention group)		
Nooijen 2017 RCT Netherlands	N=45 adults with subacute spinal cord injury - Behavioural intervention: n=23 - Standard care: n=22 Age in years [Mean (SD)]: - Behavioural intervention: 44 (15) - Standard care: 44 (15) Sex (M/F): - Behavioural intervention: n=17/n=3 - Standard care: n=16/n=3 Chronic neurological disorder category:	Behavioural intervention 13 individual face-to-face sessions: 2 sessions were scheduled per month from 2 months before discharge until 3 months after discharge; thereafter, in the following 3 months there was 1 session per month. Protocol intervention group: Interventions to support participation in recreation and leisure	Standard care Continued to receive any concomitant care they were already receiving, with no additional treatment.	Social participation

Study	Population	Intervention	Comparison	Outcomes
	acquired spinal cord injury.			
van den Akker 2017 RCT (Within the TREFAMS-ACE programme) The Netherlands	N=91 adults with multiple sclerosis • Cognitive Behavioural Therapy: n=44 • MS nurse: n=47 Age in years [Mean (SD)]: • Cognitive Behavioural Therapy: 50.6 (8.3) • MS nurse: 46.4 (11.6) Sex (M/F): • Cognitive Behavioural Therapy: n=13/n=31 • MS nurse: n=8/n=39 Chronic neurological disorder category: Progressive neurological diseases.	Cognitive Behavioural Therapy Individual face-to-face sessions over 16 weeks - 8 sessions in the first 2months, 4 sessions in the last 2months. Protocol intervention group: Interventions to support participation in recreation and leisure	See Blikman 2017	• Social participation
Veenhuizen 2019 RCT The Netherlands	N=53 adults with neuromuscular disease • Energetic programme: n=29 • Usual care: n=24 Age in years [Mean (SD) not reported] [Median (IQR)]: • Energetic programme: 52 (37-63) • Usual care: 50 (41-60) Sex (M/F):	Energetic programme Aerobic exercise training (3 sessions of 30-minutes per week for 16 weeks); exercise education (3 sessions of 60-minutes during the first 3 weeks); ECM (8 sessions of 90-minutes spread across the intervention period); implementation and relapse prevention (10 group sessions).	Usual care Continued to receive any concomitant care they were already receiving, with no additional treatment.	• Social participation

Study	Population	Intervention	Comparison	Outcomes
	• CBT: n=8/n=21 • MS nurse: n=9/n=15 Chronic neurological disorder category: Progressive neurological diseases.	Protocol intervention group: Interventions to support participation in recreation and leisure		
Voet 2014 RCT The Netherlands	N=57 adults with facioscapulohumeral muscular dystrophy • Aerobic exercise training: n=20 • Cognitive behavioural therapy: n=13 • Usual care: n=24 Age in years [Mean (SD) not reported] [Median (IQR)]: • Aerobic exercise training: 59 (21-68) • Cognitive behavioural therapy: 49 (24-69) • Usual care: 52 (20-79) Sex (M/F): • Aerobic training: n=12/n=8 • Cognitive behavioural therapy: n=8/n=5 • Usual care: n=17/n=7 Chronic neurological disorder category: Progressive	Aerobic exercise training 30 minutes cycling with additional warming-up and cooling-down periods of 5 and 3 minutes, respectively, 3x per week at home (minimum of 40 sessions) Cognitive behavioural therapy (CBT) Each session was 50 minutes. The total number of sessions for each participant was based on the number of modules to be addressed, which were identified by the therapist by performing an interview and specific tests (minimum of 3 sessions). Protocol intervention group: Interventions to support participation in recreation and leisure	Usual care Continued to receive any concomitant care they were already receiving, with no additional treatment.	• Social participation

Study	Population	Intervention	Comparison	Outcomes
	neurological diseases.			

ECM: energy conservation management; IQR: interquartile range; MS: multiple sclerosis; RCT: randomised controlled trial; SD: standard deviation; SMART: Specific Measurable Achievable, Realistic and Timely; TREFAMS-ACE: treating fatigue in multiple sclerosis - aerobic training, cognitive behavioural therapy, and energy conservation management

See the full evidence tables in appendix D. No meta-analysis was conducted (and so there are no forest plots in appendix E).

Summary of the evidence

Interventions to support participation in recreation and leisure

The behavioural intervention for physical activity in acquired spinal cord injury showed an important benefit over control in terms of social participation, measured using the ICF measure of Participation and ACTivities (IMPACT-S) score at 12-months, however no important difference was seen at 6-months.

The cognitive behavioural therapy for fatigue in progressive neurological disease showed a possible important benefit over usual care in terms of social participation, measured using the Sickness Impact Profile 68 (SIP68-sb) at 16- and 28-weeks. The term possible important benefit rather than important benefit is used because although there is a statistically significant benefit, we cannot ascertain clinical importance as no standard deviations are available for the data. No important differences were seen in any of the Impact on Participation and Autonomy (IPA) domains when compared with usual care.

The aerobic training for fatigue in progressive neurological disease showed no important difference compared with usual care in terms of social participation, measured using IPA domains or SIP68-sb.

The energy conservation management for fatigue in progressive neurological disease showed no important difference compared with usual care in terms of social participation, measured using IPA domains.

The energetic self-management programme for fatigue in progressive neurological disease showed an important benefit over usual care in terms of social participation, measured using the Canadian Occupational Performance Measure (COPM-performance) post-intervention. However, no important difference was seen at 3- and 6-months post-intervention.

The evidence ranged from very low to moderate quality. Outcomes were typically downgraded due to concerns over risk of bias from the contributing studies and imprecision in the effect estimate.

Interventions to support overall social participation

A home-based, goal-orientated, and individualised rehabilitation intervention in acquired brain injury showed no important difference at any time point compared with control in terms of social participation, measured using the Participation and Recombined Tools-Objective (PART-O), and health-related quality of life, measured using EuroQol 5-dimension 5-level (EQ-5D-5L), and Quality of Life After Brain Injury (QOLIBRI).

The Ontario Brain Injury Association Peer support programme in acquired brain injury showed no important difference compared to waitlist control in terms of community reintegration.

The 'Can do treatment' a social cognitive treatment in progressive neurological disease showed no important difference compared to control in terms of social participation,

measured using IPA limitations, and health-related quality of life, measured using the Multiple Sclerosis Quality of Life-54 Instrument (MS-QoL-54).

The evidence ranged from very low to moderate quality. Outcomes were typically downgraded due to concerns over risk of bias from the contributing studies and imprecision in the effect estimate.

There was no evidence for the following outcomes:

- Personal goal attainment
- Independence in activities of daily living

See appendix F for full GRADE tables.

Economic evidence

Included studies

One economic study was identified which was relevant to this review (van Mastrigt 2019).

A single economic search was undertaken for all topics included in the scope of this guideline. See supplementary material 2 for details.

Excluded studies

Economic studies not included in this review are listed, and reasons for their exclusion are provided in appendix J.

Summary of included economic evidence

The systematic search of the economic literature undertaken for the guideline identified the following study:

- A Dutch study which evaluated the cost effectiveness and cost-utility of 'Can Do Treatment' for people with relapsing remitting multiple sclerosis (van Mastrigt 2019).

See the economic evidence table in appendix H. See Table 3 for the economic evidence profile of the included study.

Table 3: Economic evidence profile for a ‘Can Do Treatment’ for people with relapsing remitting multiple sclerosis:

Study	Limitations	Applicability	Other comments	Incremental			Uncertainty
				Costs [3]	Effectiveness	Cost effectiveness	
van Mastrigt 2019 The Netherlands Cost effectiveness and cost-utility analysis	Potentially serious [1]	Partially [2]	-Economic evaluation alongside an RCT (Jongen 2019, N=158) -Intervention: Can Do Treatment (3-day intensive social cognitive programme; 2 large group sessions, 5 small group sessions, consultations (carrousel), a theatre evening, and start of day joint activity (optional). -Comparison: Treatment as usual (Various treatments and care provided by a neurologist). -Time horizon: 6 months -Outcomes: Multiple Sclerosis Self-Efficacy Scale (MSSES) scores, QALYs	£2,691	40.74 on MSSES scale (favours intervention) -0.018 QALYs (favours TAU)	£66 per one point improvement on the MSSES scale (range 0-100) Intervention dominated using QALYs (lower QALYs and higher costs)	-The cost difference was significant, 95% CI: £1,168 to £4,256, p<0.05. -The differences in outcomes were not significant.

Abbreviations: Abbreviations: CI: Confidence Interval; MSSES: Multiple Sclerosis Self-Efficacy Scale; QALYs: Quality-Adjusted Life Years; RCT: Randomized Controlled Trial; TAU: Treatment as usual.

[1] Short time horizon (6 months), baseline and effectiveness data from a single RCT (N=158).

[2] Non-UK study, QALYs estimated using EQ-5D-5L Dutch Tariff, most analyses from a societal perspective.

[3] Costs reported in Euros were converted to GBP using IMF Purchasing Power Parities: <https://eppi.ioe.ac.uk/costconversion/default.aspx>.

Economic model

The committee prioritised this question for economic modelling but there was insufficient effectiveness data to inform a useful model.

The committee's discussion and interpretation of the evidence

The outcomes that matter most

The committee prioritised social participation and community reintegration as critical outcomes, because the aim of this question was to determine the effectiveness of interventions to support social participation for people with chronic neurological disorders. The committee also discussed how often rehabilitation goal setting includes participation goals, and the importance of achieving these goals to an individual's engagement with and progress throughout rehabilitation. Therefore, they also agreed to select personal goal attainment as a critical outcome.

Physical and mental health related quality of life and social care related quality of life and independence in activities of daily living were selected as important outcomes to assess the effect of the interventions on the lives of people with chronic neurological disorders. It is important to know how these interventions impact the day-to-day lives and of people with chronic neurological disorders.

The quality of the evidence

The evidence was assessed using GRADE methodology and the overall confidence in the findings ranged from very low to high.

Findings were downgraded due to concerns relating to risk of bias (for example, when there was a lack of blinding in a study because rehabilitation interventions and controls are difficult to conceal or if there was a large loss to follow-up) and imprecision (for example, when 95% confidence intervals crossed 1 or more decision-making thresholds). Evidence was also downgraded for indirectness (for example, the whole study population did not all meet the guideline definition of chronic neurological disorder). No evidence was downgraded for inconsistency, as no meta-analysis was performed due to heterogeneity in definition and timepoints of outcomes.

There was no evidence for the following interventions:

- Interventions to support participation in meaningful activity or occupation
- Interventions to support community living skills
- Interventions to support participation in dating and romantic relationships
- Interventions to support participation in sexual activity

There was no evidence for the following outcomes:

- Personal goal attainment
- Independence in activities of daily living

See appendix F for full GRADE tables with quality ratings of all outcomes.

Benefits and harms

The committee discussed evidence from 2 of the studies included in this evidence review that showed an important benefit in terms of supporting social participation in recreation and

leisure. One study showed an important benefit in social participation in people receiving a behavioural intervention for physical activity in acquired spinal cord injury compared to control. However, they highlighted that this evidence was low quality with a small sample size and the only study conducted in acquired spinal cord injury. Another study showed an important benefit in social participation in people receiving the energetic self-management programme for fatigue in neuromuscular disease compared to usual care. However, the committee emphasised that the evidence was very low quality and the important benefit was only seen at post-intervention and not at further long-term follow-up points. They also noted that the population had neuromuscular disease and therefore not all participants in the study would be categorised as having a chronic neurological disorder. The committee observed that the remaining 7 studies in the evidence review failed to show any important differences in social participation, community reintegration, and physical and mental health related quality of life and social care related quality of life.

Due to the paucity of evidence, the committee decided not to make recommendations based on this review question. Instead, they made their recommendations on social participation using qualitative evidence, and a full account of their discussion and recommendations can be found in evidence review K.

Cost effectiveness and resource use

There was economic evidence from one Dutch cost-effectiveness and cost-utility analysis in adults with relapsing-remitting multiple sclerosis. It showed that a 3-day intensive social cognitive programme (versus treatment as usual by a neurologist) resulted in increased costs and improvement on the Multiple Sclerosis Self-Efficacy Scale (MSSES), resulting in an incremental cost-effectiveness ratio of £66 per one-point improvement on the MSSES scale. However, when using quality-adjusted life years (QALYs) as an outcome measure, the intervention resulted in higher costs and lower QALYs, making treatment as usual the preferred option.

The committee considered this evidence and noted that it was only partially applicable to the NICE decision-making context since it was a non-UK study. Also, QALYs were estimated using EQ-5D-5L, which has noted quality, reliability and methodological issues. The committee discussed a very short time horizon (6 months). Also, the committee discussed the limitations of QALYs as an outcome measure, particularly generic measures not being sensitive enough to capture changes in HRQoL associated with neurological conditions. This was supported by the intervention showing an improvement using disease specific measure but not when using EQ-5D-5L. Therefore, the committee was reluctant to use this economic evidence when making their recommendations. Instead, they made their recommendations about social participation using qualitative evidence, and a full account of their discussion and recommendations can be found in evidence review K.

Other factors the committee took into account

The committee decided not to make recommendations based on this review question. Instead, they made their recommendations on social participation using qualitative evidence, and a full account of their discussion and recommendations can be found in evidence review K.

Recommendations supported by this evidence review

No recommendations were made from this evidence review.

References – included studies

Effectiveness

Blikman 2017

Blikman, Lyan Jm, van Meeteren, Jetty, Twisk, Jos W et al. (2017) Effectiveness of energy conservation management on fatigue and participation in multiple sclerosis: A randomized controlled trial. *Multiple sclerosis* (Houndmills, Basingstoke, England) 23(11): 1527-1541

Borgen 2023

Borgen, Ida M H, Lovstad, Marianne, Hauger, Solveig L et al. (2023) Effect of an Individually Tailored and Home-Based Intervention in the Chronic Phase of Traumatic Brain Injury: A Randomized Clinical Trial. *JAMA network open* 6(5): e2310821

Heine 2017

Heine, Martin, Verschuren, Olaf, Hoogervorst, Erwin Lj et al. (2017) Does aerobic training alleviate fatigue and improve societal participation in patients with multiple sclerosis? A randomized controlled trial. *Multiple sclerosis* (Houndmills, Basingstoke, England) 23(11): 1517-1526

Jongen 2019

Jongen, Peter Joseph, van Mastrigt, Ghislaine A, Heerings, Marco et al. (2019) Effect of an intensive 3-day social cognitive treatment (can do treatment) on control self-efficacy in patients with relapsing remitting multiple sclerosis and low disability: A single-centre randomized controlled trial. *PloS one* 14(10): e0223482

Levy 2021

Levy, Ben B, Luong, Dorothy, Bayley, Mark T et al. (2021) A Pilot Feasibility Randomized Controlled Trial on the Ontario Brain Injury Association Peer Support Program. *Journal of clinical medicine* 10(13)

Nooijen 2017

Nooijen, Carla Fj, Stam, Henk J, Sluis, Tebbe et al. (2017) A behavioral intervention promoting physical activity in people with subacute spinal cord injury: secondary effects on health, social participation and quality of life. *Clinical rehabilitation* 31(6): 772-780

van den Akker 2017

van den Akker, Lizanne E, Beckerman, Heleen, Collette, Emma H et al. (2017) Cognitive behavioral therapy positively affects fatigue in patients with multiple sclerosis: Results of a randomized controlled trial. *Multiple sclerosis* (Houndmills, Basingstoke, England) 23(11): 1542-1553

Veenhuizen 2019

Veenhuizen, Yvonne, Cup, Edith H C, Jonker, Marianne A et al. (2019) Self-management program improves participation in patients with neuromuscular disease: A randomized controlled trial. *Neurology* 93(18): e1720-e1731

Voet 2014

Voet, Nicoline, Bleijenberg, Gijs, Hendriks, Jan et al. (2014) Both aerobic exercise and cognitive-behavioral therapy reduce chronic fatigue in FSHD: an RCT. *Neurology* 83(21): 1914-22

Economic

van Mastrigt 2019

van Mastrigt, G.A., Evers, S.M., Heerings, M., Visser, L.H., Ruimschotel, R.P., Hussaarts, A., et al. (2019) An economic evaluation attached to a single-centre, parallel group, unmasked, randomized controlled trial of a 3-day intensive social cognitive treatment (can do treatment) in patients with relapsing remitting multiple sclerosis and low disability. *Journal of Medical Economics*, 22(10), 967-980

Appendices

Appendix A Review protocols

Review protocol for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Table 4: Review protocol

ID	Field	Content
0.	PROSPERO registration number	CRD42023469495
1.	Review title	Rehabilitation for social participation
2.	Review question	What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?
3.	Objective	To determine the effectiveness of rehabilitation interventions to support social participation for people with chronic neurological disorders.
4.	Searches	The following databases will be searched: • Medline All • Embase • Cochrane Central Register of Controlled Trials (CENTRAL) • Cochrane Database of Systematic Reviews (CDSR) • PsycInfo • Social Policy and Practice Searches will be restricted by: • Date: 2013 onwards • English language • Human studies

ID	Field	Content
		• Systematic Reviews • RCTs • Non-randomised studies Other searches: Inclusion lists of systematic reviews With the agreement of the guideline committee the searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The full search strategies will be published in the final review.
5.	Condition or domain being studied	Rehabilitation interventions to improve and maintain social participation for people with chronic neurological disorders
6.	Population	Inclusion: Adults and children with rehabilitation needs due to the following chronic neurological disorders: • Acquired brain injury • Acquired spinal cord injury • Acquired peripheral nerve disorders • Progressive neurological diseases • Functional neurological disorders Exclusion: • Conditions which do not fit one of the 5 categories of chronic neurological disorder as defined in the guideline scope. These exclusions will be by exception and examined on a case-by-case basis rather than whole disorder groups. For example, this guideline will not cover autonomic neuropathy or the acute stabilisation of conditions such as encephalitis or hydrocephalus and will not cover degenerative disc disorder as spinal discs do not form part of the spinal cord. • Disorders for which interventions are primarily focused on altering body structure and functions, for example isolated peripheral nerve injuries i.e. single nerve or plexus injuries. • Surgical management of conditions (for example brain tumours, orthopaedic complications).

ID	Field	Content
		- Conditions for which NICE rehabilitation and rehabilitation related recommendations already exist, including stroke in people aged 16 years and over, dementia including Alzheimer's disease, cerebral palsy, myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome and post-COVID-19 syndrome. - Early rehabilitation after spinal cord injury as this will be covered in the NICE guideline on rehabilitation after traumatic injury
7.	Intervention	- Interventions to support participation in meaningful activity or occupation Examples include task specific training or support from others to enable participation in friendship groups, family life and parenting, online groups, condition specific social groups, parties, arts, religion, spirituality and cultural activities (might need support from others to participate). - Interventions to support community living skills Examples include community living skills training (like task specific training around road safety, using public transport, shopping, budgeting (including pocket money for children and young people). - Interventions to support participation in recreation and leisure Examples include condition specific sports groups, after school clubs, support to participate in universal sports groups, technology and equipment to enable participation, fatigue management. - Interventions to support participation in dating and romantic relationships Examples include support for social cognition, mental or psychological aspects of dating and relationships, behavioural and practical aspects [for instance digital apps] as well as education for children and young people and psychoeducation. - Interventions to support participation in sexual activity (including self or partner stimulation) Examples include access to sex workers, partner therapy, SCI interventions for sex (such as erectile aids, easy rider, penile implants/prosthesis penile erectile devices, vibratory stimulators), equipment, positional advice, task specific training, tailored sex education and sexual health, family planning and contraceptive advice.
8.	Comparator	Interventions compared with others in the same group or: - Placebo (placebo or sham) - Control (no intervention, waitlist, standard rehabilitation care alone, or 'usual care')

ID	Field	Content
		- The same intervention (as listed under 'intervention') but varied in terms of: - Frequency - Intensity - Timing - Setting
9.	Types of study to be included	Include published full-text papers: - Systematic reviews of RCTs - Experimental studies with random assignment to intervention and control groups. If insufficient* RCT evidence is located to support decision making about children and young people, then experimental studies with non-random assignment to intervention and control groups (quasi-randomised controlled trials, non-randomised controlled trials and prospective and retrospective cohort studies) will also be considered, if a method of controlling for confounding variables is used. Systematic reviews of these studies will also be considered. *Sufficiency will be judged on issues such as the number and quality of the included studies; sample sizes, reported outcomes, and availability of data on subgroups of interest. **Studies must match or adjust for age and chronic neurological disorder. Other confounding factors are: Sex delivery setting, for instance whether community or inpatient.
10.	Other exclusion criteria	Inclusion: - Full text papers - Studies conducted in the UK, Australia, New Zealand and Canada and high-income European countries (according to the World Bank). Exclusion: - Conference abstracts/proceedings

ID	Field	Content
		• Non-English language articles • Articles published before 2013 • Non-English language articles • Books, book chapters and theses. • Papers that do not include methodological details will not be included as they do not provide sufficient information to evaluate risk of bias/study quality.
11.	Context	Recommendations will apply to all inpatient (excluding critical care units), outpatient and community settings, including tertiary settings and care homes in which either fully or partially NHS-funded rehabilitation interventions for chronic neurological disorders are provided.
12.	Primary outcomes (critical outcomes)	• Social participation (measured using a validated tool, such as the Nottingham Extended Activities of Daily Living [NEADL], or CASP [C&A scale of participation]) • Personal goal attainment (measured using a validated tool of personal goal attainment such as Goal Attainment Scale [GAS]) • Community reintegration (measuring using a validated, global tool such as the Mayo-Portland Adaptability Inventory)
13.	Secondary outcomes (important outcomes)	• Physical and mental health related quality of life and social care related quality of life (measured using a validated tool, such as EQ-5D, EQ-5D-Y, SF-12, Short Musculoskeletal Function Assessment [SFMA], Adult Social Care Outcomes Toolkit [ASCOT] and ICECAP-A, Stroke Aphasia QOL Scale [SAQOL], Warwick Edinburgh Mental Well-Being Scale, Satisfaction with Life Scale [SWLS], Quality of Life in Brain Injury Scale [QOLIBRI], and Therapy Outcome Measures [TOMs], PED-SQL) • Independence in activities of daily living (measured using a validated tool of global independence in activities of daily living such as COPM, Barthel ADL index, Katz, PSMS, OARS, PAT, EADL-Test, GAS, FIMFAM, TOMS, ABCCS, PEDI-CAT).
14.	Data extraction (selection and coding)	All references identified by the searches and from other sources will be uploaded into EPPI reviewer and de-duplicated. Titles and abstracts of the retrieved citations will be screened to identify studies that potentially meet the inclusion criteria outlined in the review protocol. Dual sifting will be performed on at least 10% of records (or 300 records, whichever is smaller); 90% agreement is required and disagreements will be resolved via discussion with the senior systematic reviewer. The full set of records will not be dual screened

ID	Field	Content
		because the population, interventions and relevant study designs are relatively clear and should be readily identified from titles and abstracts. Full versions of the selected studies will be obtained for assessment. Studies that fail to meet the inclusion criteria once the full version has been checked will be excluded at this stage. Each study excluded after checking the full version will be listed, along with the reason for its exclusion. The included and excluded studies lists will be circulated to the Topic Group for their comments. Resolution of disputes will be by discussion between the senior reviewer, Topic Advisor and Chair. A standardised form will be used to extract the following data from included studies: study details (reference, country where study was carried out, type and dates), participant characteristics, inclusion and exclusion criteria, details of the interventions if relevant, setting and follow-up, relevant outcome data and source of funding. This will be quality assessed by the senior reviewer.
15.	Risk of bias (quality) assessment	Quality assessment of individual studies will be performed according to Developing NICE guidelines: the manual, using the following checklists. • ROBIS tool for systematic reviews • Cochrane RoB tool v.2 for RCTs • Cochrane ROBINS-I for non-randomised controlled trials. The quality assessment will be performed by one reviewer and this will be quality assured by a senior reviewer.
16.	Strategy for data synthesis	Depending on the availability of the evidence, the findings will be summarised narratively or quantitatively. Where possible, pairwise meta-analyses will be conducted using Cochrane Review Manager software. A fixed effect meta-analysis will be conducted and data will be presented as odds ratios or risk ratios for dichotomous outcomes. Peto odds ratio will be used for outcomes with zero events. Mean differences or standardised mean differences will be calculated for continuous outcomes. Heterogeneity in the effect estimates of the individual studies will be assessed using the I² statistic. Alongside visual inspection of the point estimates and confidence intervals, I² values of greater than 50% and 80% will be considered as significant and very significant heterogeneity, respectively. Heterogeneity will be explored as appropriate using sensitivity analyses and pre-specified subgroup analyses. If heterogeneity cannot be explained through subgroup analysis then a random effects model will be used for meta-analysis, or the data will not be pooled.

ID	Field	Content				
		The confidence in the findings across all available evidence will be evaluated for each outcome using an adaptation of the ‘Grading of Recommendations Assessment, Development and Evaluation (GRADE) toolbox’ developed by the international GRADE working group: http://www.gradeworkinggroup.org/ Importance and imprecision of findings will be assessed against minimally important differences (MIDs). Default MIDs will be used for risk ratios and continuous outcomes only, unless the committee pre-specifies published or other MIDs for specific outcomes - For risk ratios: 0.8 and 1.25. For continuous outcomes: - MID is calculated by ranking the studies in order of SD in the control arms. The MID is calculated as +/- 0.5 times median SD. - For studies that have been pooled using SMD (meta-analysed): +0.5 and -0.5 in the SMD scale are used as MID boundaries.				
17.	Analysis of sub-groups	Evidence will be stratified by: - Age at time of intervention (children vs. adults). Children are classified as being aged 17 years or younger. - Functional neurological disorders as distinct from the 4 other categories of neurological disorder. Evidence will be subgrouped by the following only in the event that there is significant heterogeneity in outcomes: - The 4 disorder categories not separated out through a priori stratification (acquired brain injury, acquired spinal cord injury, acquired peripheral nerve disorders and progressive neurological diseases) - Study design (RCT v. NRS) - Age (for the ≤17 years of age stratification only). Categories are <4 years, 4-11 years and >11 years Where evidence is stratified or sub grouped the committee will consider on a case-by-case basis if separate recommendations should be made for distinct groups. Separate recommendations may be made where there is evidence of a differential effect of interventions in distinct groups. If there is a lack of evidence in one group, the committee will consider, based on their experience, whether it is reasonable to extrapolate and assume the interventions will have similar effects in that group compared with others.				
18.		<table><tr><td>☒</td><td>Intervention</td></tr><tr><td>☐</td><td>Diagnostic</td></tr></table>	☒	Intervention	☐	Diagnostic
☒	Intervention					
☐	Diagnostic					

ID	Field	Content		
	Type and method of review	☐	Prognostic	
		☐	Qualitative	
		☐	Epidemiologic	
		☐	Service Delivery	
		☐	Other (please specify)	
19.	Language	English		
20.	Country	England		
21.	Anticipated or actual start date	May 2022		
22.	Anticipated completion date	December 2023		
23.	Stage of review at time of this submission	Review stage	Started	Completed
		Preliminary searches	☒	☒
		Piloting of the study selection process	☒	☒
		Formal screening of search results against eligibility criteria	☒	☒
		Data extraction	☒	☒

ID	Field	Content
		Risk of bias (quality) assessment ☒ Data analysis ☒
24.	Named contact	5a. Named contact NICE 5b Named contact e-mail rehabforcnd@nice.org.uk 5e Organisational affiliation of the review National Institute for Health and Care Excellence (NICE)
25.	Review team members	NICE Technical Team
26.	Funding sources/sponsor	This systematic review is being completed by NICE, which receives funding from the Department of Health and Social Care.
27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual . Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10181

ID	Field	Content
29.	Other registration details	N/A
30.	Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42023469184
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: notifying registered stakeholders of publication publicising the guideline through NICE's newsletter and alerts issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	Acquired brain injury; acquired spinal cord injury; activities of daily living; neurological diseases; neurological disorders; peripheral nerve disorders; rehabilitation.
33.	Details of existing review of same topic by same authors	N/A
34.	Current review status	☐ Ongoing
		☐ Completed but not published
		☒ Completed and published
		☐ Completed, published and being updated
		☐ Discontinued
35..	Additional information	N/A
36.	Details of final publication	www.nice.org.uk

ABCCS: Activities-Specific Balance Confidence Scale; ADL: activity of daily living; ASCOT: Adult Social Care Outcomes Toolkit; CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; COPM: Canadian occupational performance measure; EADL: extended activities of daily living; EQ 5D: EuroQoL five dimensions; FIMFAM: UK functional assessment measure; GAS: Goal attainment scale; GRADE: Grading of Recommendations Assessment, Development and Evaluation; HADS-A: Hospital Anxiety and Depression Scale-Anxiety; HADS-D: Hospital Anxiety and Depression Scale-Depression; ICECAP-A: NeuroQOL: Quality of Life in Neurological Disorders; INAHTA: International Network of Agencies for Health Technology Assessment; MEDLINE: Medical Literature Analysis and Retrieval System Online; MID: minimally important difference; NICE: National Institute for Health and Care Excellence; NRS: non-randomised trials; OARS: Older Americans resources and services; PedsQL: Paediatric Quality of Life Inventory; PAT: Performance ADL test; PEDI-CAT: Paediatric evaluation of disability inventory- computer adaptive test; PHQ-9: Patient Health Questionnaire; PRESS: Peer Review of Electronic Search Strategies; PSMS: Physical self-maintenance scale; QUOLIBRI: Quality of Life after Brain Injury; SF-36: 36-Item Short Form Survey; ROBIS: risk of bias in systematic reviews; SD: standard deviation; SMD: standard mean difference; TOMS: Therapy Outcome Measure; WHOQOL-100: World Health Organisation Quality of Life Assessment

Appendix B Literature search strategies

Literature search strategies for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Database: Ovid MEDLINE(R) ALL

Date of last search: Ovid MEDLINE(R) ALL <1946 to June 28, 2023>

1	(CRANIOCEREBRAL TRAUMA/ or brain injuries/ or exp brain hemorrhage, traumatic/ or exp brain injuries, diffuse/ or exp brain injuries, traumatic/ or exp brain injury, chronic/ or Shaken Baby Syndrome/ or HYPOXIA, BRAIN/ or Brain Damage, Chronic/ or exp INTRACRANIAL HEMORRHAGE, TRAUMATIC/ or exp BRAIN NEOPLASMS/ or BRAIN DISEASES/ or BRAIN ABSCESS/ or BRAIN DISEASES, METABOLIC/ or CEREBELLAR DISEASES/ or cerebrovascular disorders/ or basal ganglia cerebrovascular disease/ or cerebrovascular trauma/ or intracranial arteriovenous malformations/ or "intracranial embolism and thrombosis"/ or intracranial hemorrhages/ or vascular headaches/ or exp ENCEPHALITIS/ or exp HYDROCEPHALUS/) not (exp STROKE/ or dementia/)
2	((brain* or cereb* or craniocereb* or cranial or intracran* or neurocognit*) adj2 (injur* or trauma* or damage* or disease*1 or disorder* or infect* or h?emorrhag* or neoplasm* or cancer* or tumor* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)).ti,ab.
3	(chronic* adj1 trauma* adj2 encephalopath*).ti,ab.
4	((infratentorial* or supratentorial* or hypothalam* or pituitary* or choroid plexus) adj2 (neoplasm* or cancer* or tumor* or carcinom* or adenocarcinom*)).ti,ab.
5	(brain* adj2 abscess*).ti,ab.
6	(carotid arter* adj2 (disease* or injur*)).ti,ab.
7	("basal ganglia disease*" or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cereb* degenerat*" or "shak* baby syndrome*").ti,ab.
8	exp STROKE/ and (ADOLESCENT/ or MINORS/ or exp CHILD/ or exp INFANT/ or exp PEDIATRICS/ or exp PUBERTY/)
9	(stroke? adj3 (p?ediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or under-age* or "under age*" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school age*" or schoolage* or "under 16" or "under sixteen*")).ti,ab.
10	exp SPINAL CORD INJURIES/ or exp SPINAL CORD NEOPLASMS/ or EPIDURAL ABSCESS/ or SPINAL CORD DISEASES/ or exp SPINAL CORD VASCULAR DISEASES/ or SPINAL CORD COMPRESSION/ or MYELITIS, TRANSVERSE/
11	((spinal* or spine?) adj2 (injur* or trauma* or tumor* or neoplasm* or cancer* or infect* or insult* or disease? or disorder* or degenrat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or h?emorrhag*)).ti,ab.
12	(Central cord syndrome* or transverse myelitis).ti,ab.
13	(epidural* adj2 (neoplasm* or cancer* or tumor* or abscess*)).ti,ab.
14	((spinal* or spine?) adj2 (viral* or virus* or polio* or acquired immunodeficiency syndrome or AIDS or HIV or bacterial* or neurosyphili* or neuro-syphili* or tubercul*)).ti,ab.
15	PERIPHERAL NERVE INJURIES/ or exp CRANIAL NERVE INJURIES/ or PERIPHERAL NERVOUS SYSTEM NEOPLASMS/ or exp CRANIAL NERVE NEOPLASMS/ or exp PERIPHERAL NERVOUS SYSTEM DISEASES/ or exp CRANIAL NERVE DISEASES/
16	((periph* or cranial*) adj1 (nerve? or nervous system) adj2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome?)).ti,ab.
17	(Guillain* adj1 Barr*).ti,ab.
18	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 injur*).ti,ab.
19	(optic* adj1 nerve* adj2 (neoplasm* or cancer* or tumor*?)).ti,ab.
20	(brachial plexus adj1 (neuropath* or neuritis)).ti,ab.
21	(complex regional pain syndrome* or causalgia or mononeuropath* or nerve compression syndrome*).ti,ab.
22	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) adj1 neuropath*).ti,ab.
23	((carpal-tunnel or piriformis-muscle or tarsal-tunnel or thoracic-outlet) adj1 syndrome*).ti,ab.
24	(pudendal neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*).ti,ab.

25	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 disease*).ti,ab.
26	(periph* adj2 neuropath*).ti,ab.
27	((((periph* or cranial*) adj2 (nerve? or nervous system)) and lupus).ti,ab.
28	((multi-focal* or multifocal*) adj2 motor adj1 neuropath*).ti,ab.
29	((((periph* or cranial*) adj2 (nerve? or nervous system)) and alcohol*).ti,ab.
30	exp MOTOR NEURON DISEASE/ or POSTPOLIOMYELITIS SYNDROME/ or exp PARKINSONIAN DISORDERS/ or MUSCULAR DYSTROPHY, DUCHENNE/ or exp MULTIPLE SCLEROSIS/ or NEUROMUSCULAR DISEASES/ or SPASTIC PARAPLEGIA, HEREDITARY/ or FRIEDREICH ATAXIA/ or exp MULTIPLE SYSTEM ATROPHY/ or SUPRANUCLEAR PALSY, PROGRESSIVE/ or CORTICOBASAL DEGENERATION/ or LEUKODYSTROPHY, METACHROMATIC/ or exp MITOCHONDRIAL MYOPATHIES/ or exp MUCOPOLYSACCHARIDOSES/ or WILLIAMS SYNDROME/ or GENETIC DISEASES, INBORN/ or RETT SYNDROME/ or FETAL ALCOHOL SPECTRUM DISORDERS/ or DYSTONIC DISORDERS/ or "HEREDITARY SENSORY AND MOTOR NEUROPATHY"/ or SPINAL DYSRAPHISM/
31	(neurolog* adj1 (condition* or disease* or damage* or disorder* or impair*).ti,ab.
32	((motor-neuron* or gehrig* or charcott* or kennedy*) adj1 disease*).ti,ab.
33	((amyotroph* or primary) adj1 lateral* adj1 sclero*).ti,ab.
34	(bulbar adj1 pals*).ti,ab.
35	((muscular or muscle* or bulbo) adj1 atroph* adj1 spin*).ti,ab.
36	(progressiv* adj1 (muscular or muscle*) adj1 atroph*).ti,ab.
37	((postpolio* or post-polio*) adj1 syndrome?).ti,ab.
38	(Parkinson* or duchenne* or multiple scleros?s* or aphasia or creutzfeldt-jakob or huntington* or kløver-bucy).ti,ab.
39	(muscular adj1 dystroph*).ti,ab.
40	(neuromusc* adj1 (disease* or disorder?)).ti,ab.
41	(heredit* adj1 spastic* adj1 parapleg*).ti,ab.
42	"friedreich* ataxia*".ti,ab.
43	((multiple system or olivopontocerebellar) adj1 atroph*).ti,ab.
44	(shy-drager syndrome* or striatonigral degenerat* or batten* disease?).ti,ab.
45	(progressive adj1 supranuclear adj1 pals*).ti,ab.
46	(richardson* adj1 (disease? or syndrome?)).ti,ab.
47	((corticobasal or cortico basal) adj1 degenerat*).ti,ab.
48	(white adj1 matter adj1 disorder?).ti,ab.
49	(metachromatic leukodystroph* or mitochondrial myopath* or mucopolysaccharidos*).ti,ab.
50	(lysosomal adj1 storage adj1 disorder?).ti,ab.
51	((genetic or William* or catch-22 or rett* or congenital or f?etal alcohol) adj1 (syndrome or disorder*).ti,ab.
52	(perinatal illness* or perinatal hypoxia*).ti,ab.
53	(primary adj1 dystonia?).ti,ab.
54	(heredit* adj1 motor* adj1 sens* adj1 neuropath*).ti,ab.
55	(spina bifida? or spinal dysraphism?).ti,ab.
56	MOVEMENT DISORDERS/ or MOTOR DISORDERS/ or CONVERSION DISORDER/
57	((functional* or psychogenic* or dissociative*) adj1 neurologic* adj1 (disorder* or dysfunction* or difficult*).ti,ab.
58	((movement* or motor* or convers*) adj1 (disorder* or dysfunct*).ti,ab.
59	((psychogenic or dissociative or non-epilep* or nonepilep*) adj1 (seizure* or convulsion* or fit or fits or spasm* or attack*).ti,ab.
60	(pseudo-seizure* or pseudoseizure*).ti,ab.
61	(medical* adj1 (unexplain* or un-explain*) adj1 symptom?).ti,ab.
62	or/1-61
63	letter/
64	editorial/
65	news/
66	exp historical article/
67	Anecdotes as topic/

68	comment/
69	case reports/
70	(letter or comment*).ti.
71	or/63-70
72	randomized controlled trial/ or random*.ti,ab.
73	71 not 72
74	animals/ not humans/
75	exp Animals, Laboratory/
76	exp Animal Experimentation/
77	exp Models, Animal/
78	exp Rodentia/
79	(rat or rats or rodent* or mouse or mice).ti.
80	or/73-79
81	62 not 80
82	limit 81 to english language
83	limit 82 to yr="2013 -Current"
84	Social Participation/ or Social Behavior/ or social interaction/ or social skills/ or social group/ or socialization/ or sociological factors/ or social support/ or psychology, social/ or psychosocial functioning/
85	(sociali?ation or sociali?ing or befriend*).tw.
86	(social* adj3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
87	Family/ or Family Therapy/ or Marital Therapy/
88	((family or familial or families or parent* or husband* or wife* or wive* or spous* or marriage* or co-habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
89	((family or married or marital) adj (life or lives) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
90	Religion/ or pastoral care/ or spirituality/ or culture/
91	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) adj3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).tw.
92	pastoral care.tw.
93	community integration/
94	(communit* adj3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or join* in or tak* part)).tw.
95	(road safe* or public transport or driving or shopping or pocket money).tw.
96	((learn* or relearn* or car or automobile or auto-mobile) adj2 drive*).tw.
97	((money* or budget* or finances or financial or income*) adj2 (skill* or support* or advis* or advic* or manag*)).tw.
98	(community adj2 living).tw.
99	Task specific training.tw.
100	(meaningful adj (activit* or occupation)).tw.
101	Art/ or Leisure Activities/ or recreation/ or hobbies/ or sports/
102	(leisure* or hobby or hobbies or pastime*).tw.
103	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
104	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.

105	((sport* or physical activit* or exercise* or exercising or fitness) and ((fatigue* or tired* or motivat*) adj2 (skill* or support* or advis* or advice or educat* or assist* or help* or aid or stop* or manage*))).tw.
106	((online adj (club or clubs or group* or communit* or forum*)) or social media).tw.
107	courtship/ or love/
108	((romantic or dating or love or personal) adj (life or lives)).tw.
109	((romantic or romance or dating or love or courtship) adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or app or apps or online or rehab* or telerehab* or neurorehab*))).tw.
110	(relationship* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or rehab* or telerehab* or neurorehab*))).tw.
111	Interpersonal Relations/ or Social Cognition/
112	(interpersonal adj3 (skill* or support* or advis* or advice or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*))).tw.
113	(social cognit* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or activit* or assist* or educat* or training or counsel* or rehab* or telerehab* or neurorehab*))).tw.
114	psychoeducation*.tw.
115	Sex/ or Sex Education/ or Sexual Health/ or sexual behavior/ or coitus/ or masturbation/ or orgasm/ or sex workers/
116	((sex or sexual) adj3 (life or lives or pleasure* or intimacy or intimate* or intercourse* or satisfy or satisfaction or position* or skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or assist* or educat* or training or counsel* or therap* or aid or device* or equipment or rehab* or telerehab* or neurorehab*))).tw.
117	((sex adj1 (worker or escort or service*)) or prostitut*).tw.
118	((self or partner* or solo or sex or sexual) adj stimulat*) or (vibrat* adj (stimulator* or device*)) or vibrator* or intimerider*).tw.
119	Penile Prosthesis/
120	((penile or penis) adj2 (prosthe* or implant* or artificial)) or ((corpus or corporal) adj3 dilat*).tw.
121	((erection or erectile or masturbat*) adj2 (support or aid or device* or help* or assist*))).tw.
122	Contraception Behavior/ or Contraception/ or Family Planning Services/ or safe sex/
123	(contraception or contraceptive* or (family adj2 plan*))).tw.
124	or/84-123
125	83 and 124
126	randomized controlled trial.pt.
127	controlled clinical trial.pt.
128	pragmatic clinical trial.pt.
129	randomi#ed.ab.
130	placebo.ab.
131	randomly.ab.
132	CLINICAL TRIALS AS TOPIC/ or trial.ti.
133	or/126-132
134	meta-analysis/
135	meta-analysis as topic/
136	(meta analy* or metanaly* or metaanaly*).ti,ab.
137	((systematic* or evidence*) adj2 (review* or overview*))).ti,ab.
138	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
139	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
140	(search* adj4 literature).ab.
141	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
142	cochrane.jw.
143	or/134-142
144	exp Cohort studies/
145	((follow up* or followup* or concurrent* or incidence* or population*) adj3 (study* or studies* or analy* or observation* or design* or method* or research*))).ti,ab.

146	(longitudinal* or prospective* or retrospective* or cohort*).ti,ab.
147	Cross-Sectional Studies/
148	((prevalence* or disease frequenc*) adj3 (study* or studies* or analy* or observation* or design* or method* or research*)).ti,ab.
149	cross sectional*.ti,ab.
150	Pilot Project/
151	(Pilot adj3 (project* or study* or studies* or analy* or observation* or design* or method* or research*)).ti,ab.
152	or/144-151
153	125 and (133 or 143)

Database: Embase

Date of last search: Embase <1974 to 2023 June 28>

1	(head injury/ or exp brain injury/ or chronic brain disease/ or brain hemorrhage/ or brain hypoxia/ or exp brain tumor/ or brain disease/ or brain abscess/ or metabolic encephalopathy/ or cerebellum disease/ or exp cerebrovascular disease/ or encephalitis/ or hydrocephalus/) not (exp cerebrovascular accident/ or dementia/)
2	((brain* or cereb* or craniocereb* or cranial or intracran* or neurocognit*) adj2 (injur* or trauma* or damage* or disease*1 or disorder* or infect* or h?emorrhag* or neoplasm* or cancer* or tumo?r* or insult* or impair* or ischemi* or infarcti* or hypoxi* or drown*)).ti,ab.
3	(chronic* adj1 trauma* adj2 encephalopath*).ti,ab.
4	((infratentorial* or supratentorial* or hypothalam* or pituitar* or choroid plexus) adj2 (neoplasm* or cancer* or tumo?r* or carcinom* or adenocarcinom*)).ti,ab.
5	(brain* adj2 abscess*).ti,ab.
6	(carotid arter* adj2 (disease* or injur*)).ti,ab.
7	("basal ganglia disease*" or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cereb* degenerat*" or "shak* baby syndrome*").ti,ab.
8	exp cerebrovascular accident/ and (adolescent/ or "minor (person)"/ or exp child/ or exp infant/ or pediatrics/ or exp pediatrics/ or exp puberty/)
9	(stroke? adj3 (p?ediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or under-age* or "under age*" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school age*" or schoolage* or "under 16" or "under sixteen*")).ti,ab.
10	exp spinal cord injury/ or exp spinal cord tumor/ or epidural abscess/ or spinal cord disease/ or exp spinal cord vascular disease/ or spinal cord compression/ or transverse myelitis/
11	((spinal* or spine?) adj2 (injur* or trauma* or tumo?r* or neoplasm* or cancer* or infect* or insult* or disease? or disorder* or degenerat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or h?emorrhag*)).ti,ab.
12	(Central cord syndrome* or transverse myelitis).ti,ab.
13	(epidural* adj2 (neoplasm* or cancer* or tumo?r* or abscess*)).ti,ab.
14	((spinal* or spine?) adj2 (viral* or virus* or polio* or acquired immunodeficiency syndrome or AIDS or HIV or bacterial* or neurosyphili* or neuro-syphili* or tubercul*)).ti,ab.
15	peripheral nerve injury/ or exp cranial nerve injury/ or peripheral nerve tumor/ or exp cranial nerve tumor/ or exp peripheral neuropathy/ or exp cranial neuropathy/
16	((periph* or cranial*) adj1 (nerve? or nervous system) adj2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumo?r* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome?)).ti,ab.
17	(Guillain* adj1 Barr*).ti,ab.
18	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 injur*).ti,ab.
19	(optic* adj1 nerve* adj2 (neoplasm* or cancer* or tumo?r*)).ti,ab.
20	(brachial plexus adj1 (neuropath* or neuritis)).ti,ab.
21	(complex regional pain syndrome* or causalgia or mononeuropath* or nerve compression syndrome*).ti,ab.
22	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) adj1 neuropath*).ti,ab.
23	((carpal-tunnel or piriformis-muscle or tarsal-tunnel or thoracic-outlet) adj1 syndrome*).ti,ab.

24	(pudendal neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*).ti,ab.
25	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 disease*).ti,ab.
26	(periph* adj2 neuropath*).ti,ab.
27	((((periph* or cranial*) adj2 (nerve? or nervous system)) and lupus).ti,ab.
28	((multi-focal* or multifocal*) adj2 motor adj1 neuropath*).ti,ab.
29	((((periph* or cranial*) adj2 (nerve? or nervous system)) and alcohol*).ti,ab.
30	exp motor neuron disease/ or postpoliomyelitis syndrome/ or exp parkinsonism/ or Duchenne muscular dystrophy/ or exp multiple sclerosis/ or neuromuscular disease/ or hereditary motor sensory neuropathy/ or Friedreich ataxia/ or exp Shy Drager syndrome/ or progressive supranuclear palsy/ or corticobasal degeneration/ or metachromatic leukodystrophy/ or exp mitochondrial myopathy/ or exp mucopolysaccharidosis/ or Williams Beuren syndrome/ or genetic disorder/ or Rett syndrome/ or fetal alcohol syndrome/ or dystonic disorder/ or hereditary motor sensory neuropathy/ or spinal dysraphism/
31	(neurolog* adj1 (condition* or disease* or damage* or disorder* or impair*).ti,ab.
32	((motor-neuron* or gehrig* or charcott* or kennedy*) adj1 disease*).ti,ab.
33	((amyotroph* or primary) adj1 lateral* adj1 sclero*).ti,ab.
34	(bulbar adj1 pals*).ti,ab.
35	((muscular or muscle* or bulbo) adj1 atroph* adj1 spin*).ti,ab.
36	(progressiv* adj1 (muscular or muscle*) adj1 atroph*).ti,ab.
37	((postpolio* or post-polio*) adj1 syndrome?).ti,ab.
38	(Parkinson* or duchenne* or multiple scleros?s* or aphasia or creutzfeldt-jakob or huntington* or kløver-bucy).ti,ab.
39	(muscular adj1 dystroph*).ti,ab.
40	(neuromusc* adj1 (disease* or disorder?)).ti,ab.
41	(heredit* adj1 spastic* adj1 parapleg*).ti,ab.
42	"friedreich* ataxia*".ti,ab.
43	((multiple system or olivopontocerebellar) adj1 atroph*).ti,ab.
44	(shy-drager syndrome* or striatonigral degenerat* or batten* disease?).ti,ab.
45	(progressive adj1 supranuclear adj1 pals*).ti,ab.
46	(richardson* adj1 (disease? or syndrome?)).ti,ab.
47	((corticobasal or cortico basal) adj1 degenerat*).ti,ab.
48	(white adj1 matter adj1 disorder?).ti,ab.
49	(metachromatic leukodystroph* or mitochondrial myopath* or mucopolysaccharidos*).ti,ab.
50	(lysosomal adj1 storage adj1 disorder?).ti,ab.
51	((genetic or William* or catch-22 or rett* or congenital or f?etal alcohol) adj1 (syndrome or disorder*).ti,ab.
52	(perinatal illness* or perinatal hypoxia*).ti,ab.
53	(primary adj1 dystonia?).ti,ab.
54	(heredit* adj1 motor* adj1 sens* adj1 neuropath*).ti,ab.
55	(spina bifida? or spinal dysraphism?).ti,ab.
56	motor dysfunction/ or motor dysfunction/ or conversion disorder/
57	((functional* or psychogenic* or dissociative*) adj1 neurologic* adj1 (disorder* or dysfunction* or difficult*).ti,ab.
58	((movement* or motor* or convers*) adj1 (disorder* or dysfunct*).ti,ab.
59	((psychogenic or dissociative or non-epilep* or nonepilep*) adj1 (seizure* or convulsion* or fit or fits or spasm* or attack*).ti,ab.
60	(pseudo-seizure* or pseudoseizure*).ti,ab.
61	(medical* adj1 (unexplain* or un-explain*) adj1 symptom?).ti,ab.
62	or/1-61
63	letter.pt. or letter/
64	note.pt.
65	editorial.pt.
66	case report/ or case study/
67	(letter or comment*).ti.

68	or/63-67
69	randomized controlled trial/ or random*.ti,ab.
70	68 not 69
71	animal/ not human/
72	nonhuman/
73	exp Animal Experiment/
74	exp Experimental Animal/
75	animal model/
76	exp Rodent/
77	(rat or rats or rodent* or mouse or mice).ti.
78	or/70-77
79	62 not 78
80	(conference abstract* or conference review or conference paper or conference proceeding).db,pt,su.
81	79 not 80
82	limit 81 to english language
83	limit 82 to yr="2013 -Current"
84	social behavior/ or social interaction/ or social competence/ or socialization/ or "social aspects and related phenomena"/ or social support/ or social psychology/
85	(sociali?ation or sociali?ing or befriend*).tw.
86	(social* adj3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
87	*family/ or *family life/ or *family functioning/ or *family interaction/ or *family coping/ or *marital therapy/
88	((family or familial or families or parent* or husband* or wife* or wive* or spous* or marriage* or co-habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
89	((family or married or marital) adj (life or lives) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
90	*religion/ or *pastoral care/ or *spiritual care/ or *spiritual well-being/
91	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) adj3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).tw.
92	pastoral care.tw.
93	*community integration/
94	(communit* adj3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or join* in or tak* part)).tw.
95	(road safe* or public transport or driving or shopping or pocket money).tw.
96	((learn* or relearn* or car or automobile or auto-mobile) adj2 drive*).tw.
97	((money* or budget* or finances or financial or income*) adj2 (skill* or support* or advis* or advic* or manag*)).tw.
98	(community adj2 living).tw.
99	Task specific training.tw.
100	(meaningful adj (activit* or occupation)).tw.
101	*art/ or *leisure/ or *recreation/ or *sport/
102	(leisure* or hobby or hobbies or pastime*).tw.
103	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
104	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.

105	((sport* or physical activit* or exercise* or exercising or fitness) and ((fatigue* or tired* or motivat*) adj2 (skill* or support* or advis* or advice or educat* or assist* or help* or aid or stop* or manage*))).tw.
106	((online adj (club or clubs or group* or communit* or forum*)) or social media).tw.
107	*courtship/ or *flirting/ or *online dating/ or *love/
108	((romantic or dating or love or personal) adj (life or lives)).tw.
109	((romantic or romance or dating or love or courtship) adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or app or apps or online or rehab* or telerehab* or neurorehab*)).tw.
110	(relationship* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or rehab* or telerehab* or neurorehab*)).tw.
111	*human relation/
112	(interpersonal adj3 (skill* or support* or advis* or advice or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).tw.
113	*social cognition/
114	(social cognit* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or activit* or assist* or educat* or training or counsel* or rehab* or telerehab* or neurorehab*)).tw.
115	*psychoeducation/
116	psychoeducation*.tw.
117	*sex/ or *sexual education/ or exp *sexual health/ or *sexual behavior/ or *adolescent sexual behavior/ or *sexual practice/ or *coitus/ or *sexual intercourse/ or *masturbation/ or *orgasm/ or *prostitution/
118	((sex or sexual) adj3 (life or lives or pleasure* or intimacy or intimate* or intercourse* or satisfy or satisfaction or position* or skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or assist* or educat* or training or counsel* or therap* or aid or device* or equipment or rehab* or telerehab* or neurorehab*)).tw.
119	((sex adj1 (worker or escort or service*)) or prostitut*).tw.
120	((self or partner* or solo or sex or sexual) adj stimulat*) or (vibrat* adj (stimulator* or device*)) or vibrator* or intimaterider*).tw.
121	*penis prosthesis/
122	((penile or penis) adj2 (prosthe* or implant* or artificial)) or ((corpus or corporal) adj3 dilat*).tw.
123	((erection or erectile or masturbat*) adj2 (support or aid or device* or help* or assist*)).tw.
124	exp *contraceptive behavior/ or *safe sex/ or *contraception/ or *family planning/
125	(contraception or contraceptive* or (family adj2 plan*)).tw.
126	or/84-124
127	83 and 126
128	systematic review/
129	meta-analysis/
130	(meta analy* or metanaly* or metaanaly*).ti,ab.
131	((systematic or evidence) adj2 (review* or overview*)).ti,ab.
132	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
133	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
134	(search* adj4 literature).ab.
135	(medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or psycinfo or cinahl or science citation index or bids or cancerlit).ab.
136	((pool* or combined) adj2 (data or trials or studies or results)).ab.
137	cochrane.jw.
138	or/128-137
139	random*.ti,ab.
140	factorial*.ti,ab.
141	(crossover* or cross over*).ti,ab.
142	((doubl* or singl*) adj blind*).ti,ab.
143	(assign* or allocat* or volunteer* or placebo*).ti,ab.
144	CROSSOVER PROCEDURE/
145	SINGLE BLIND PROCEDURE/
146	RANDOMIZED CONTROLLED TRIAL/

147	DOUBLE BLIND PROCEDURE/
148	or/139-147
149	127 and (138 or 148)

Database: Cochrane Database of Systematic Reviews

Date of last search: 30/06/2023

#1	MeSH descriptor: [Craniocerebral Trauma] this term only
#2	MeSH descriptor: [Brain Injuries] this term only
#3	MeSH descriptor: [Brain Hemorrhage, Traumatic] explode all trees
#4	MeSH descriptor: [Brain Injuries, Diffuse] explode all trees
#5	MeSH descriptor: [Brain Injuries, Traumatic] explode all trees
#6	MeSH descriptor: [Brain Injury, Chronic] explode all trees
#7	MeSH descriptor: [Shaken Baby Syndrome] this term only
#8	MeSH descriptor: [Brain Damage, Chronic] this term only
#9	MeSH descriptor: [Hypoxia, Brain] this term only
#10	MeSH descriptor: [Intracranial Hemorrhage, Traumatic] explode all trees
#11	MeSH descriptor: [Brain Neoplasms] explode all trees
#12	MeSH descriptor: [Brain Diseases] this term only
#13	MeSH descriptor: [Brain Abscess] this term only
#14	MeSH descriptor: [Brain Diseases, Metabolic] this term only
#15	MeSH descriptor: [Cerebellar Diseases] this term only
#16	MeSH descriptor: [Cerebrovascular Disorders] this term only
#17	MeSH descriptor: [Basal Ganglia Cerebrovascular Disease] this term only
#18	MeSH descriptor: [Cerebrovascular Trauma] this term only
#19	MeSH descriptor: [Intracranial Arteriovenous Malformations] this term only
#20	MeSH descriptor: [Intracranial Embolism and Thrombosis] this term only
#21	MeSH descriptor: [Intracranial Hemorrhages] this term only
#22	MeSH descriptor: [Vascular Headaches] this term only
#23	MeSH descriptor: [Encephalitis] this term only
#24	MeSH descriptor: [Hydrocephalus] this term only
#25	{or #1-#24}
#26	MeSH descriptor: [Stroke] explode all trees
#27	MeSH descriptor: [Dementia] this term only
#28	#26 or #27
#29	#25 NOT #28
#30	((brain* or cereb* or craniocereb* or cranial or intracran* or neurocognit*) NEAR/2 (injur* or trauma* or damage* or disease* or diseases* or disorder* or infect* or hemorrhag* or haemorrhag* or neoplasm* or cancer* or tumour* or tumor* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)):ti,ab
#31	(chronic* NEAR/1 trauma* NEAR/2 encephalopath*):ti,ab
#32	((infratentorial* or supratentorial* or hypothalam* or pituitar* or "choroid plexus") NEAR/2 (neoplasm* or cancer* or tumour* or tumor* or carcinom* or adenocarcinom*)):ti,ab
#33	(brain* NEAR/2 abscess*):ti,ab
#34	(carotid arter* NEAR/2 (disease* or injur*)):ti,ab
#35	("basal ganglia" next disease* or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cerebellar" next degenerat* or "shaken baby" next syndrome* or "shaking baby" next syndrome*):ti,ab
#36	MeSH descriptor: [Stroke] explode all trees
#37	MeSH descriptor: [Adolescent] this term only
#38	MeSH descriptor: [Minors] this term only
#39	MeSH descriptor: [Child] explode all trees

#40	MeSH descriptor: [Infant] explode all trees
#41	MeSH descriptor: [Pediatrics] explode all trees
#42	MeSH descriptor: [Puberty] explode all trees
#43	{or #37-#42}
#44	#36 and #43
#45	((stroke or strokes) NEAR/3 (paediatric* or pediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or "under age" or "under ages" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school ages" or "school age" or schoolage* or "under 16" or "under sixteen" or "under sixteens")):ti,ab
#46	MeSH descriptor: [Spinal Cord Injuries] explode all trees
#47	MeSH descriptor: [Spinal Cord Neoplasms] explode all trees
#48	MeSH descriptor: [Epidural Abscess] this term only
#49	MeSH descriptor: [Spinal Cord Diseases] this term only
#50	MeSH descriptor: [Spinal Cord Vascular Diseases] explode all trees
#51	MeSH descriptor: [Spinal Cord Compression] this term only
#52	MeSH descriptor: [Myelitis, Transverse] this term only
#53	((spinal* or spine or spines) NEAR/2 (injur* or trauma* or tumour* or tumor* or neoplasm* or cancer* or infect* or insult* or disease or diseases or disorder* or degenerat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or hemorrhag* or haemorrhag*)):ti,ab
#54	("Central cord" next syndrome* or "transverse myelitis"):ti,ab
#55	(epidural* NEAR/2 (neoplasm* or cancer* or tumour* or tumor* or abscess*)):ti,ab
#56	((spinal* or spine or spines) NEAR/2 (viral* or virus* or polio* or "acquired immunodeficiency syndrome" or AIDS or HIV or bacterial* or neurosyphili* or neuro next syphili* or tubercul*)):ti,ab
#57	MeSH descriptor: [Peripheral Nerve Injuries] this term only
#58	MeSH descriptor: [Cranial Nerve Injuries] explode all trees
#59	MeSH descriptor: [Peripheral Nervous System Neoplasms] this term only
#60	MeSH descriptor: [Cranial Nerve Neoplasms] explode all trees
#61	MeSH descriptor: [Peripheral Nervous System Diseases] explode all trees
#62	MeSH descriptor: [Cranial Nerve Diseases] explode all trees
#63	((periph* or cranial*) NEAR/1 (nerve or nerves or nervous system) NEAR/2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumour* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome*)):ti,ab
#64	(Guillain* NEAR/1 Barr*):ti,ab
#65	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or "ocular motility" or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) NEAR/1 nerve* NEAR/1 injur*):ti,ab
#66	(optic* NEAR/1 nerve* NEAR/2 (neoplasm* or cancer* or tumour* or tumor*)):ti,ab
#67	(brachial next plexus NEAR/1 (neuropath* or neuritis)):ti,ab
#68	("complex regional pain" next syndrome* or causalgia or mononeuropath* or "nerve compression" next syndrome*):ti,ab
#69	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) NEAR/1 neuropath*):ti,ab
#70	((carpal next tunnel or piriformis next muscle or tarsal next tunnel or thoracic next outlet) NEAR/1 syndrome*):ti,ab
#71	(pudendal next neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*):ti,ab
#72	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or "ocular motility" or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) NEAR/1 nerve* NEAR/1 disease*):ti,ab
#73	(periph* NEAR/2 neuropath*):ti,ab
#74	((((periph* or cranial*) NEAR/2 (nerve or nerves or nervous system)) and lupus):ti,ab
#75	((multi next focal* or multifocal*) NEAR/2 motor NEAR/1 neuropath*):ti,ab
#76	((((periph* or cranial*) NEAR/2 (nerve or nerves or nervous system)) and alcohol*):ti,ab
#77	{or #29-#35, #44-#76}
#78	
#79	MeSH descriptor: [Postpoliomyelitis Syndrome] this term only
#80	MeSH descriptor: [Parkinsonian Disorders] explode all trees
#81	MeSH descriptor: [Muscular Dystrophy, Duchenne] this term only
#82	MeSH descriptor: [Multiple Sclerosis] explode all trees

#83	MeSH descriptor: [Neuromuscular Diseases] this term only
#84	MeSH descriptor: [Spastic Paraplegia, Hereditary] this term only
#85	MeSH descriptor: [Friedreich Ataxia] this term only
#86	MeSH descriptor: [Multiple System Atrophy] explode all trees
#87	MeSH descriptor: [Supranuclear Palsy, Progressive] this term only
#88	MeSH descriptor: [Corticobasal Degeneration] explode all trees
#89	MeSH descriptor: [Leukodystrophy, Metachromatic] this term only
#90	MeSH descriptor: [Mitochondrial Myopathies] explode all trees
#91	MeSH descriptor: [Mucopolysaccharidoses] explode all trees
#92	MeSH descriptor: [Williams Syndrome] this term only
#93	MeSH descriptor: [Genetic Diseases, Inborn] this term only
#94	MeSH descriptor: [Rett Syndrome] this term only
#95	MeSH descriptor: [Fetal Alcohol Spectrum Disorders] this term only
#96	MeSH descriptor: [Dystonic Disorders] this term only
#97	MeSH descriptor: [Hereditary Sensory and Motor Neuropathy] this term only
#98	MeSH descriptor: [Spinal Dysraphism] this term only
#99	(neurolog* NEAR/1 (condition* or disease* or damage* or disorder* or impair*)):ti,ab
#100	((motor next neuron* or gehrig* or charcott* or kennedy*) NEAR/1 disease*):ti,ab
#101	((amyotroph* or primary) NEAR/1 lateral* NEAR/1 sclero*):ti,ab
#102	(bulbar NEAR/1 pals*):ti,ab
#103	((muscular or muscle* or bulbo) NEAR/1 atroph* NEAR/1 spin*):ti,ab
#104	(progressiv* NEAR/1 (muscular or muscle*) NEAR/1 atroph*):ti,ab
#105	((postpolio* or post next polio*) NEAR/1 (syndrome*)):ti,ab
#106	(Parkinson* or duchenne* or multiple next scleros* or sclerosos* or aphasia or creutzfeldt next jakob or huntington* or klüber next bucy):ti,ab
#107	(muscular NEAR/1 dystroph*):ti,ab
#108	((neurolog*) near/1 (condition* or disease* or damage* or disorder* or impair*)):ti,ab
#109	(heredit* NEAR/1 spastic* NEAR/1 parapleg*):ti,ab
#110	(friedreich* next ataxia*):ti,ab
#111	((("multiple system" or olivopontocerebellar) NEAR/1 atroph*):ti,ab
#112	((shy next drager next syndrome*) or striatonigral next degenerat* or batten next disease*):ti,ab
#113	(progressive NEAR/1 supranuclear NEAR/1 pals*):ti,ab
#114	(richardson* NEAR/1 (disease* or syndrome*)):ti,ab
#115	((corticobasal or "cortico basal") NEAR/1 degenerat*):ti,ab
#116	("white matter" NEAR/1 (disorder*)):ti,ab
#117	(metachromatic next leukodystroph* or mitochondrial next myopath* or mucopolysaccharidos*):ti,ab
#118	(lysosomal NEAR/1 storage NEAR/1 disorder*):ti,ab
#119	((genetic or William* or "catch-22" or rett* or congenital or fetal or "foetal alcohol") NEAR/1 (syndrome* or disorder*)):ti,ab
#120	(perinatal NEAR/1 (illness* or hypoxia*)):ti,ab
#121	(primary NEAR/1 (dystonia or dystonias)):ti,ab
#122	(heredit* NEAR/1 motor* NEAR/1 sens* NEAR/1 neuropath*):ti,ab
#123	(spina next bifida or bifidas or spinal next dysraphism or dysraphisms):ti,ab
#124	MeSH descriptor: [Movement Disorders] this term only
#125	MeSH descriptor: [Motor Disorders] this term only
#126	MeSH descriptor: [Conversion Disorder] this term only
#127	((functional* or psychogenic* or dissociative*) NEAR/1 neurologic* NEAR/1 (disorder* or dysfunction* or difficult*)):ti,ab
#128	((movement* or motor* or convers*) NEAR/1 (disorder* or dysfunct*)):ti,ab
#129	((psychogenic or dissociative or non-epilep* or nonepilep*) NEAR/1 (seizure* or convulsion* or fit or fits or spasm* or attack*)):ti,ab
#130	(pseudo next seizure or pseudoseizure):ti,ab
#131	(medical* NEAR/1 (unexplain* or un next explain*) NEAR/1 (symptom*)):ti,ab

#132	{or #77-#131}
#133	MeSH descriptor: [Social Participation] this term only
#134	MeSH descriptor: [Social Behavior] this term only
#135	MeSH descriptor: [Social Interaction] this term only
#136	MeSH descriptor: [Social Skills] this term only
#137	MeSH descriptor: [Social Group] this term only
#138	MeSH descriptor: [Socialization] this term only
#139	MeSH descriptor: [Sociological Factors] this term only
#140	MeSH descriptor: [Social Support] this term only
#141	MeSH descriptor: [Psychology, Social] this term only
#142	MeSH descriptor: [Psychosocial Functioning] this term only
#143	(socialization or socialisation or socializing or socialising or befriend*):ti,ab
#144	(social* near/3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)):ti,ab
#145	MeSH descriptor: [Family] this term only
#146	MeSH descriptor: [Family Therapy] this term only
#147	MeSH descriptor: [Marital Therapy] this term only
#148	((family or familial or families or parent* or husband* or wife* or wife* or spous* or marriage* or co next habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) near/3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)):ti,ab
#149	((family or married or marital) next (life or lives) near/3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)):ti,ab
#150	MeSH descriptor: [Religion] this term only
#151	MeSH descriptor: [Pastoral Care] this term only
#152	MeSH descriptor: [Spirituality] this term only
#153	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) near/3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)):ti,ab
#154	pastoral care:ti,ab
#155	MeSH descriptor: [Community Integration] this term only
#156	(communit* near/3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or join* next in or tak* next part)):ti,ab
#157	
#158	((learn* or relearn* or car or automobile or auto next mobile) near/2 drive*):ti,ab
#159	((money* or budget* or finances or financial or income*) near/2 (skill* or support* or advis* or advic* or manag*)):ti,ab
#160	(community near/2 living):ti,ab
#161	task specific training:ti,ab
#162	(meaningful next (activit* or occupation)):ti,ab
#163	MeSH descriptor: [Art] this term only
#164	MeSH descriptor: [Leisure Activities] this term only
#165	MeSH descriptor: [Recreation] this term only
#166	MeSH descriptor: [Hobbies] this term only
#167	MeSH descriptor: [Sports] this term only
#168	(leisure* or hobby or hobbies or pastime*):ti,ab
#169	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) near/3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* next in or tak* next part or rehab* or telerehab* or neurorehab*)):ti,ab
#170	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) near/3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* next in or tak* next part or rehab* or telerehab* or neurorehab*)):ti,ab

#171	((sport* or physical next activit* or exercise* or exercising or fitness) and ((fatigue* or tired* or motivat*) near/2 (skill* or support* or advis* or advice or educat* or assist* or help* or aid or stop* or manage*))) :ti,ab
#172	((online next (club or clubs or group* or communit* or forum*)) or "social media") :ti,ab
#173	MeSH descriptor: [Courtship] this term only
#174	MeSH descriptor: [Love] this term only
#175	((romantic or dating or love or personal) next (life or lives)) :ti,ab
#176	((romantic or romance or dating or love or courtship) near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or app or apps or online or rehab* or telerehab* or neurorehab*)) :ti,ab
#177	(relationship* near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or rehab* or telerehab* or neurorehab*)) :ti,ab
#178	MeSH descriptor: [Interpersonal Relations] this term only
#179	(interpersonal near/3 (skill* or support* or advis* or advice or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)) :ti,ab
#180	MeSH descriptor: [Social Cognition] this term only
#181	(social next cognit* near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or assist* or educat* or training or counsel* or rehab* or telerehab* or neurorehab*)) :ti,ab
#182	psychoeducation* :ti,ab
#183	MeSH descriptor: [Sex] this term only
#184	MeSH descriptor: [Sex Education] this term only
#185	MeSH descriptor: [Sexual Health] this term only
#186	MeSH descriptor: [Sexual Behavior] this term only
#187	MeSH descriptor: [Coitus] this term only
#188	MeSH descriptor: [Coitus] this term only
#189	MeSH descriptor: [Orgasm] this term only
#190	MeSH descriptor: [Masturbation] this term only
#191	MeSH descriptor: [Sex Workers] this term only
#192	((sex or sexual) near/3 (life or lives or pleasure* or intimacy or intimate* or intercourse* or satisfy or satisfaction or position* or skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or assist* or educat* or training or counsel* or therap* or aid or device* or equipment or rehab* or telerehab* or neurorehab*)) :ti,ab
#193	((sex near/1 (worker or escort or service*)) or prostitut*) :ti,ab
#194	((self or partner* or solo or sex or sexual) next stimulat*) or (vibrat* next (stimulator* or device*)) or vibrator* or intimerider*) :ti,ab
#195	MeSH descriptor: [Penile Prosthesis] this term only
#196	((penile or penis) near/2 (prosth* or implant* or artificial)) or ((corpus or corporal) near/3 dilat*) :ti,ab
#197	((erection or erectile or masturbat*) near/2 (support or aid or device* or help* or assist*)) :ti,ab
#198	MeSH descriptor: [Contraception Behavior] this term only
#199	MeSH descriptor: [Contraception] this term only
#200	MeSH descriptor: [Family Planning Services] this term only
#201	MeSH descriptor: [Safe Sex] this term only
#202	(contraception or contraceptive* or (family near/2 plan*)) :ti,ab
#203	{or #133-#202}
#204	#132 and #203
#205	conference:pt or (clinicaltrials or trialsearch):so
#206	#204 not #205 with Cochrane Library publication date Between Jan 2013 and Jul 2023, in Cochrane Reviews

Database: Cochrane Central Register of Controlled Trials

Date of last search: 30/06/2023

#1	MeSH descriptor: [Craniocerebral Trauma] this term only
#2	MeSH descriptor: [Brain Injuries] this term only
#3	MeSH descriptor: [Brain Hemorrhage, Traumatic] explode all trees
#4	MeSH descriptor: [Brain Injuries, Diffuse] explode all trees
#5	MeSH descriptor: [Brain Injuries, Traumatic] explode all trees
#6	MeSH descriptor: [Brain Injury, Chronic] explode all trees
#7	MeSH descriptor: [Shaken Baby Syndrome] this term only
#8	MeSH descriptor: [Brain Damage, Chronic] this term only
#9	MeSH descriptor: [Hypoxia, Brain] this term only
#10	MeSH descriptor: [Intracranial Hemorrhage, Traumatic] explode all trees
#11	MeSH descriptor: [Brain Neoplasms] explode all trees
#12	MeSH descriptor: [Brain Diseases] this term only
#13	MeSH descriptor: [Brain Abscess] this term only
#14	MeSH descriptor: [Brain Diseases, Metabolic] this term only
#15	MeSH descriptor: [Cerebellar Diseases] this term only
#16	MeSH descriptor: [Cerebrovascular Disorders] this term only
#17	MeSH descriptor: [Basal Ganglia Cerebrovascular Disease] this term only
#18	MeSH descriptor: [Cerebrovascular Trauma] this term only
#19	MeSH descriptor: [Intracranial Arteriovenous Malformations] this term only
#20	MeSH descriptor: [Intracranial Embolism and Thrombosis] this term only
#21	MeSH descriptor: [Intracranial Hemorrhages] this term only
#22	MeSH descriptor: [Vascular Headaches] this term only
#23	MeSH descriptor: [Encephalitis] this term only
#24	MeSH descriptor: [Hydrocephalus] this term only
#25	{or #1-#24}
#26	MeSH descriptor: [Stroke] explode all trees
#27	MeSH descriptor: [Dementia] this term only
#28	#26 or #27
#29	#25 NOT #28
#30	((brain* or cereb* or craniocereb* or cranial or intracran* or neurocognit*) NEAR/2 (injur* or trauma* or damage* or disease* or diseases* or disorder* or infect* or hemorrhag* or haemorrhag* or neoplasm* or cancer* or tumour* or tumor* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)):ti,ab
#31	(chronic* NEAR/1 trauma* NEAR/2 encephalopath*):ti,ab
#32	((infratentorial* or supratentorial* or hypothalam* or pituitar* or "choroid plexus") NEAR/2 (neoplasm* or cancer* or tumour* or tumor* or carcinom* or adenocarcinom*)):ti,ab
#33	(brain* NEAR/2 abscess*):ti,ab
#34	(carotid arter* NEAR/2 (disease* or injur*)):ti,ab
#35	("basal ganglia" next disease* or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cerebellar" next degenerat* or "shaken baby" next syndrome* or "shaking baby" next syndrome*):ti,ab
#36	MeSH descriptor: [Stroke] explode all trees
#37	MeSH descriptor: [Adolescent] this term only
#38	MeSH descriptor: [Minors] this term only
#39	MeSH descriptor: [Child] explode all trees
#40	MeSH descriptor: [Infant] explode all trees
#41	MeSH descriptor: [Pediatrics] explode all trees
#42	MeSH descriptor: [Puberty] explode all trees
#43	{or #37-#42}
#44	#36 and #43
#45	((stroke or strokes) NEAR/3 (paediatric* or pediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or "under age" or "under ages" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school ages" or "school age" or schoolage* or "under 16" or "under sixteen" or "under sixteens")):ti,ab
#46	MeSH descriptor: [Spinal Cord Injuries] explode all trees

#47	MeSH descriptor: [Spinal Cord Neoplasms] explode all trees
#48	MeSH descriptor: [Epidural Abscess] this term only
#49	MeSH descriptor: [Spinal Cord Diseases] this term only
#50	MeSH descriptor: [Spinal Cord Vascular Diseases] explode all trees
#51	MeSH descriptor: [Spinal Cord Compression] this term only
#52	MeSH descriptor: [Myelitis, Transverse] this term only
#53	((spinal* or spine or spines) NEAR/2 (injur* or trauma* or tumour* or tumor* or neoplasm* or cancer* or infect* or insult* or disease or diseases or disorder* or degenrat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or hemorrhag* or haemorrhag*)):ti,ab
#54	("Central cord" next syndrome* or "transverse myelitis"):ti,ab
#55	(epidural* NEAR/2 (neoplasm* or cancer* or tumour* or tumor* or abscess*)):ti,ab
#56	((spinal* or spine or spines) NEAR/2 (viral* or virus* or polio* or "acquired immunodeficiency syndrome" or AIDS or HIV or bacterial* or neurosyphili* or neuro next syphili* or tubercul*)):ti,ab
#57	MeSH descriptor: [Peripheral Nerve Injuries] this term only
#58	MeSH descriptor: [Cranial Nerve Injuries] explode all trees
#59	MeSH descriptor: [Peripheral Nervous System Neoplasms] this term only
#60	MeSH descriptor: [Cranial Nerve Neoplasms] explode all trees
#61	MeSH descriptor: [Peripheral Nervous System Diseases] explode all trees
#62	MeSH descriptor: [Cranial Nerve Diseases] explode all trees
#63	((periph* or cranial*) NEAR/1 (nerve or nerves or nervous system) NEAR/2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumour* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome*)):ti,ab
#64	(Guillain* NEAR/1 Barr*):ti,ab
#65	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or "ocular motility" or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) NEAR/1 nerve* NEAR/1 injur*):ti,ab
#66	(optic* NEAR/1 nerve* NEAR/2 (neoplasm* or cancer* or tumour* or tumor*)):ti,ab
#67	(brachial next plexus NEAR/1 (neuropath* or neuritis)):ti,ab
#68	("complex regional pain" next syndrome* or causalgia or mononeuropath* or "nerve compression" next syndrome*):ti,ab
#69	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) NEAR/1 neuropath*):ti,ab
#70	((carpal next tunnel or piriformis next muscle or tarsal next tunnel or thoracic next outlet) NEAR/1 syndrome*):ti,ab
#71	(pudendal next neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*):ti,ab
#72	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or "ocular motility" or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) NEAR/1 nerve* NEAR/1 disease*):ti,ab
#73	(periph* NEAR/2 neuropath*):ti,ab
#74	((((periph* or cranial*) NEAR/2 (nerve or nerves or nervous system)) and lupus):ti,ab
#75	((multi next focal* or multifocal*) NEAR/2 motor NEAR/1 neuropath*):ti,ab
#76	((((periph* or cranial*) NEAR/2 (nerve or nerves or nervous system)) and alcohol*):ti,ab
#77	{or #29-#35, #44-#76}
#78	
#79	MeSH descriptor: [Postpoliomyelitis Syndrome] this term only
#80	MeSH descriptor: [Parkinsonian Disorders] explode all trees
#81	MeSH descriptor: [Muscular Dystrophy, Duchenne] this term only
#82	MeSH descriptor: [Multiple Sclerosis] explode all trees
#83	MeSH descriptor: [Neuromuscular Diseases] this term only
#84	MeSH descriptor: [Spastic Paraplegia, Hereditary] this term only
#85	MeSH descriptor: [Friedreich Ataxia] this term only
#86	MeSH descriptor: [Multiple System Atrophy] explode all trees
#87	MeSH descriptor: [Supranuclear Palsy, Progressive] this term only
#88	MeSH descriptor: [Corticobasal Degeneration] explode all trees
#89	MeSH descriptor: [Leukodystrophy, Metachromatic] this term only
#90	MeSH descriptor: [Mitochondrial Myopathies] explode all trees
#91	MeSH descriptor: [Mucopolysaccharidoses] explode all trees

#92	MeSH descriptor: [Williams Syndrome] this term only
#93	MeSH descriptor: [Genetic Diseases, Inborn] this term only
#94	MeSH descriptor: [Rett Syndrome] this term only
#95	MeSH descriptor: [Fetal Alcohol Spectrum Disorders] this term only
#96	MeSH descriptor: [Dystonic Disorders] this term only
#97	MeSH descriptor: [Hereditary Sensory and Motor Neuropathy] this term only
#98	MeSH descriptor: [Spinal Dysraphism] this term only
#99	(neurolog* NEAR/1 (condition* or disease* or damage* or disorder* or impair*)):ti,ab
#100	((motor next neuron* or gehrig* or charcott* or kennedy*) NEAR/1 disease*):ti,ab
#101	((amyotroph* or primary) NEAR/1 lateral* NEAR/1 sclero*):ti,ab
#102	(bulbar NEAR/1 pals*):ti,ab
#103	((muscular or muscle* or bulbo) NEAR/1 atroph* NEAR/1 spin*):ti,ab
#104	(progressiv* NEAR/1 (muscular or muscle*) NEAR/1 atroph*):ti,ab
#105	((postpolio* or post next polio*) NEAR/1 (syndrome*)):ti,ab
#106	(Parkinson* or duchenne* or multiple next scleros* or sclerosos* or aphasia or creutzfeldt next jakob or huntington* or kløver next bucy):ti,ab
#107	(muscular NEAR/1 dystroph*):ti,ab
#108	((neurolog*) near/1 (condition* or disease* or damage* or disorder* or impair*)):ti,ab
#109	(heredit* NEAR/1 spastic* NEAR/1 parapleg*):ti,ab
#110	(friedreich* next ataxia*):ti,ab
#111	((("multiple system" or olivopontocerebellar) NEAR/1 atroph*):ti,ab
#112	((shy next drager next syndrome*) or striatonigral next degenerat* or batten next disease*):ti,ab
#113	(progressive NEAR/1 supranuclear NEAR/1 pals*):ti,ab
#114	(richardson* NEAR/1 (disease* or syndrome*)):ti,ab
#115	((corticobasal or "cortico basal") NEAR/1 degenerat*):ti,ab
#116	("white matter" NEAR/1 (disorder*)):ti,ab
#117	(metachromatic next leukodystroph* or mitochondrial next myopath* or mucopolysaccharidos*):ti,ab
#118	(lysosomal NEAR/1 storage NEAR/1 disorder*):ti,ab
#119	((genetic or William* or "catch-22" or rett* or congenital or fetal or "foetal alcohol") NEAR/1 (syndrome* or disorder*)):ti,ab
#120	(perinatal NEAR/1 (illness* or hypoxia*)):ti,ab
#121	(primary NEAR/1 (dystonia or dystonias)):ti,ab
#122	(heredit* NEAR/1 motor* NEAR/1 sens* NEAR/1 neuropath*):ti,ab
#123	(spina next bifida or bifidas or spinal next dysraphism or dysraphisms):ti,ab
#124	MeSH descriptor: [Movement Disorders] this term only
#125	MeSH descriptor: [Motor Disorders] this term only
#126	MeSH descriptor: [Conversion Disorder] this term only
#127	((functional* or psychogenic* or dissociative*) NEAR/1 neurologic* NEAR/1 (disorder* or dysfunction* or difficult*)):ti,ab
#128	((movement* or motor* or convers*) NEAR/1 (disorder* or dysfunct*)):ti,ab
#129	((psychogenic or dissociative or non-epilep* or nonepilep*) NEAR/1 (seizure* or convulsion* or fit or fits or spasm* or attack*)):ti,ab
#130	(pseudo next seizure or pseudoseizure):ti,ab
#131	(medical* NEAR/1 (unexplain* or un next explain*) NEAR/1 (symptom*)):ti,ab
#132	{or #77-#131}
#133	MeSH descriptor: [Social Participation] this term only
#134	MeSH descriptor: [Social Behavior] this term only
#135	MeSH descriptor: [Social Interaction] this term only
#136	MeSH descriptor: [Social Skills] this term only
#137	MeSH descriptor: [Social Group] this term only
#138	MeSH descriptor: [Socialization] this term only
#139	MeSH descriptor: [Sociological Factors] this term only
#140	MeSH descriptor: [Social Support] this term only

#141	MeSH descriptor: [Psychology, Social] this term only
#142	MeSH descriptor: [Psychosocial Functioning] this term only
#143	(socialization or socialisation or socializing or socialising or befriend*):ti,ab
#144	(social* near/3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)):ti,ab
#145	MeSH descriptor: [Family] this term only
#146	MeSH descriptor: [Family Therapy] this term only
#147	MeSH descriptor: [Marital Therapy] this term only
#148	((family or familial or families or parent* or husband* or wife* or wife* or spous* or marriage* or co next habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) near/3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)):ti,ab
#149	((family or married or marital) next (life or lives) near/3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)):ti,ab
#150	MeSH descriptor: [Religion] this term only
#151	MeSH descriptor: [Pastoral Care] this term only
#152	MeSH descriptor: [Spirituality] this term only
#153	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) near/3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)):ti,ab
#154	pastoral care:ti,ab
#155	MeSH descriptor: [Community Integration] this term only
#156	(communit* near/3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or join* next in or tak* next part)):ti,ab
#157	
#158	((learn* or relearn* or car or automobile or auto next mobile) near/2 drive*):ti,ab
#159	((money* or budget* or finances or financial or income*) near/2 (skill* or support* or advis* or advic* or manag*)):ti,ab
#160	(community near/2 living):ti,ab
#161	task specific training:ti,ab
#162	(meaningful next (activit* or occupation)):ti,ab
#163	MeSH descriptor: [Art] this term only
#164	MeSH descriptor: [Leisure Activities] this term only
#165	MeSH descriptor: [Recreation] this term only
#166	MeSH descriptor: [Hobbies] this term only
#167	MeSH descriptor: [Sports] this term only
#168	(leisure* or hobby or hobbies or pastime*):ti,ab
#169	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) near/3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* next in or tak* next part or rehab* or telerehab* or neurorehab*)):ti,ab
#170	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) near/3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* next in or tak* next part or rehab* or telerehab* or neurorehab*)):ti,ab
#171	((sport* or physical next activit* or exercise* or exercising or fitness) and ((fatigue* or tired* or motivat*) near/2 (skill* or support* or advis* or advice or educat* or assist* or help* or aid or stop* or manage*)):ti,ab
#172	((online next (club or clubs or group* or communit* or forum*)) or "social media"):ti,ab
#173	MeSH descriptor: [Courtship] this term only
#174	MeSH descriptor: [Love] this term only
#175	((romantic or dating or love or personal) next (life or lives)):ti,ab
#176	((romantic or romance or dating or love or courtship) near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or

	involv* or counsel* or therap* or educat* or psycholog* or app or apps or online or rehab* or telerehab* or neurorehab*)):ti,ab
#177	(relationship* near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or rehab* or telerehab* or neurorehab*)):ti,ab
#178	MeSH descriptor: [Interpersonal Relations] this term only
#179	(interpersonal near/3 (skill* or support* or advis* or advice or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)):ti,ab
#180	MeSH descriptor: [Social Cognition] this term only
#181	(social next cognit* near/3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or activit* or assist* or educat* or training or counsel* or rehab* or telerehab* or neurorehab*)):ti,ab
#182	psychoeducation*:ti,ab
#183	MeSH descriptor: [Sex] this term only
#184	MeSH descriptor: [Sex Education] this term only
#185	MeSH descriptor: [Sexual Health] this term only
#186	MeSH descriptor: [Sexual Behavior] this term only
#187	MeSH descriptor: [Coitus] this term only
#188	MeSH descriptor: [Coitus] this term only
#189	MeSH descriptor: [Orgasm] this term only
#190	MeSH descriptor: [Masturbation] this term only
#191	MeSH descriptor: [Sex Workers] this term only
#192	((sex or sexual) near/3 (life or lives or pleasure* or intimacy or intimate* or intercourse* or satisfy or satisfaction or position* or skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or assist* or educat* or training or counsel* or therap* or aid or device* or equipment or rehab* or telerehab* or neurorehab*)):ti,ab
#193	((sex near/1 (worker or escort or service*)) or prostitut*):ti,ab
#194	((self or partner* or solo or sex or sexual) next stimulat* or (vibrat* next (stimulator* or device*)) or vibrator* or intimaterider*)):ti,ab
#195	MeSH descriptor: [Penile Prosthesis] this term only
#196	((penile or penis) near/2 (prosth* or implant* or artificial)) or ((corpus or corporal) near/3 dilat*)):ti,ab
#197	((erection or erectile or masturbat*) near/2 (support or aid or device* or help* or assist*)):ti,ab
#198	MeSH descriptor: [Contraception Behavior] this term only
#199	MeSH descriptor: [Contraception] this term only
#200	MeSH descriptor: [Family Planning Services] this term only
#201	MeSH descriptor: [Safe Sex] this term only
#202	(contraception or contraceptive* or (family near/2 plan*)):ti,ab
#203	{or #133-#202}
#204	#132 and #203
#205	conference:pt or (clinicaltrials or trialsearch):so
#206	#204 not #205 with Publication Year from 2013 to 2023, in Trials

Database: Social Policy and Practice

Date of last search: 30/06/2023

1	((brain* or cereb* or craniocereb* or cranial or intracrani* or neurocognit*) adj2 (injur* or trauma* or damage* or disease*1 or disorder* or infect* or h?emorrhag* or neoplasm* or cancer* or tumo?* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)):ti,ab.
2	((brain* or cereb* or craniocereb* or cranial* or intracrani* or neurocognit*) and (injur* or trauma* or damage* or disease*1 or disorder* or infect* or h?emorrhag* or neoplasm* or cancer* or tumo?* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)):hw.
3	(chronic* adj1 trauma* adj2 encephalopath*):ti,ab.
4	(chronic* and trauma* and encephalopath*):hw.

5	((infratentorial* or supratentorial* or hypothalam* or pituitar* or choroid plexus) adj2 (neoplasm* or cancer* or tumor* or carcinom* or adenocarcinom*)).ti,ab.
6	((infratentorial* or supratentorial* or hypothalam* or pituitar* or choroid plexus*) and (neoplasm* or cancer* or tumor* or carcinom* or adenocarcinom*)).hw.
7	(brain* adj2 abscess*).ti,ab.
8	(brain* and abscess*).hw.
9	(carotid arter* adj2 (disease* or injur*)).ti,ab.
10	(carotid arter* and (disease* or injur*)).hw.
11	("basal ganglia disease*" or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cereb* degenerat*" or "shak* baby syndrome*").ti,ab.
12	("basal ganglia disease*" or encephalitis* or meningoencephalitis* or hydrocephal* or "paraneoplastic cereb* degenerat*" or "shak* baby syndrome*").hw.
13	(stroke? adj3 (p?ediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or under-age* or under-age* or "under age*" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school age*" or schoolage* or "under 16" or "under sixteen*")).ti,ab.
14	(stroke* and (p?ediatric* or child* or adolescen* or kid* or youth* or youngster* or minor* or under-age* or under-age* or "under age*" or teen* or juvenile* or boy* or girl* or schoolchild* or "school age*" or schoolage* or "under 16*" or "under sixteen*")).hw.
15	((spinal* or spine?) adj2 (injur* or trauma* or tumor* or neoplasm* or cancer* or infect* or insult* or disease* or disorder* or degenrat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or h?emorrhag*)).ti,ab.
16	((spinal* or spine*) and (injur* or trauma* or tumor* or neoplasm* or cancer* or infect* or insult* or disease* or disorder* or degenrat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or h?emorrhag*)).hw.
17	(Central cord syndrome* or transverse myelitis).ti,ab.
18	(Central cord syndrome* or transverse myelitis*).hw.
19	(epidural* adj2 (neoplasm* or cancer* or tumor* or abscess*)).ti,ab.
20	(epidural* and (neoplasm* or cancer* or tumor* or abscess*)).hw.
21	((spinal* or spine?) adj2 (viral* or virus* or polio* or acquired immunodeficiency syndrome or AIDS or HIV or bacterial* or neurosyphili* or neuro-syphili* or tubercul*)).ti,ab.
22	((spinal* or spine*) and (viral* or virus* or polio* or acquired immunodeficiency syndrome* or AIDS or HIV or bacterial* or neurosyphili* or neuro-syphili* or tubercul*)).hw.
23	((periph* or cranial*) adj1 (nerve* or nervous system) adj2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome?)).ti,ab.
24	((periph* or cranial*) and (nerve* or nervous system*) and (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome?)).hw.
25	(Guillain* adj1 Barr*).ti,ab.
26	(Guillain* and Barr*).hw.
27	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 injur*).ti,ab.
28	((abducen* or accessor* or facial* or glossopharyngeal* or hypoglossal* or oculomotor* or ocular* motility* or olfactory* or optic* or trigeminal* or trochlear* or vestibulocochlear*) and nerve* and injur*).hw.
29	(optic* adj1 nerve* adj2 (neoplasm* or cancer* or tumor*r*)).ti,ab.
30	(optic* and nerve* and (neoplasm* or cancer* or tumor*r*)).hw.
31	(brachial plexus adj1 (neuropath* or neuritis)).ti,ab.
32	(brachial plexus* and (neuropath* or neuritis*)).hw.
33	(complex regional pain syndrome* or causalgia or mononeuropath* or nerve compression syndrome*).ti,ab.
34	(complex regional pain syndrome* or causalgia* or mononeuropath* or nerve compression syndrome*).hw.
35	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) adj1 neuropath*).ti,ab.
36	((femoral* or median* or peroneal* or radial* or sciatic* or tibial* or ulnar*) and neuropath*).hw.
37	((carpal-tunnel or piriformis-muscle or tarsal-tunnel or thoracic-outlet) adj1 syndrome*).ti,ab.
38	((carpal-tunnel* or piriformis-muscle* or tarsal-tunnel* or thoracic-outlet*) and syndrome*).hw.
39	(pudendal neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*).ti,ab.

40	(pudendal neuralgia* or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*).hw.
41	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 disease*).ti,ab.
42	((abducen* or accessory* or facial* or glossopharyngeal* or hypoglossal* or oculomotor* or ocular motility* or olfactory* or optic* or trigeminal* or trochlear* or vestibulocochlear*) and nerve* and disease*).hw.
43	(periph* adj2 neuropath*).ti,ab.
44	(periph* and neuropath*).hw.
45	((((periph* or cranial*) adj2 (nerve? or nervous system)) and lupus).ti,ab.
46	((periph* or cranial*) and (nerve* or nervous system*) and lupus*).hw.
47	((multi-focal* or multifocal*) adj2 motor adj1 neuropath*).ti,ab.
48	((multi-focal* or multifocal*) and motor* and neuropath*).hw.
49	((((periph* or cranial*) adj2 (nerve? or nervous system)) and alcohol*).ti,ab.
50	((periph* or cranial*) and (nerve* or nervous system*) and alcohol*).hw.
51	(neurolog* adj1 (condition* or disease* or damage* or disorder* or impair*).ti,ab.
52	(neurolog* and (condition* or disease* or damage* or disorder* or impair*).hw.
53	((motor-neuron* or gehrig* or charcott* or kennedy*) adj1 disease*).ti,ab.
54	((motor-neuron* or gehrig* or charcott* or kennedy*) and disease*).hw.
55	((amyotroph* or primary) adj1 lateral* adj1 sclero*).ti,ab.
56	((amyotroph* or primary*) and lateral* and sclero*).hw.
57	(bulbar adj1 pals*).ti,ab.
58	(bulbar* and pals*).hw.
59	((muscular or muscle* or bulbo) adj1 atroph* adj1 spin*).ti,ab.
60	((muscular* or muscle* or bulbo*) and atroph* and spin*).hw.
61	(progressiv* adj1 (muscular or muscle*) adj1 atroph*).ti,ab.
62	(progressiv* and (muscular* or muscle*) and atroph*).hw.
63	((postpolio* or post-polio*) adj1 syndrome?).ti,ab.
64	((postpolio* or post-polio*) and syndrome*).hw.
65	(Parkinson* or duchenne* or multiple scleros?s* or aphasia or creutzfeldt-jakob or huntington* or klaver-bucy).ti,ab.
66	(Parkinson* or duchenne* or multiple scleros?s* or aphasia* or creutzfeldt-jakob* or huntington* or klaver-bucy*).hw.
67	(muscular adj1 dystroph*).ti,ab.
68	(muscular* and dystroph*).hw.
69	(neuromusc* adj1 (disease* or disorder?)).ti,ab.
70	(neuromusc* and (disease* or disorder?)).hw.
71	(heredit* adj1 spastic* adj1 parapleg*).ti,ab.
72	(heredit* and spastic* and parapleg*).hw.
73	"friedreich* ataxia*".ti,ab.
74	"friedreich ataxia*".hw.
75	((multiple system or olivopontocerebellar) adj1 atroph*).ti,ab.
76	((multiple system* or olivopontocerebellar*) and atroph*).hw.
77	(shy-drager syndrome* or striatonigral degenerat* or batten* disease?).ti,ab.
78	(shy-drager syndrome* or striatonigral degenerat* or batten* disease*).hw.
79	(progressive adj1 supranuclear adj1 pals*).ti,ab.
80	(progressive* and supranuclear* and pals*).hw.
81	(richardson* adj1 (disease? or syndrome?)).ti,ab.
82	(richardson* and (disease* or syndrome?)).hw.
83	((corticobasal or cortico basal) adj1 degenerat*).ti,ab.
84	((corticobasal* or cortico basal*) and degenerat*).hw.
85	(white adj1 matter adj1 disorder?).ti,ab.
86	(white* and matter* and disorder*).hw.
87	(metachromatic leukodystroph* or mitochondrial myopath* or mucopolysaccharidos*).ti,ab.

88	(metachromatic leukodystroph* or mitochondrial myopath* or mucopolysaccharidos*).hw.
89	(lysosomal adj1 storage adj1 disorder?).ti,ab.
90	(lysosomal* and storage* and disorder*).hw.
91	((genetic or William* or catch-22 or rett* or congenital or f?etal alcohol) adj1 (syndrome or disorder*).ti,ab.
92	((genetic* or William* or catch-22* or rett* or congenital* or f?etal alcohol*) and (syndrome* or disorder*).hw.
93	(perinatal illness* or perinatal hypoxia*).ti,ab.
94	(perinatal illness* or perinatal hypoxia*).hw.
95	(primary adj1 dystonia?).ti,ab.
96	(primary* and dystonia*).hw.
97	(heredit* adj1 motor* adj1 sens* adj1 neuropath*).ti,ab.
98	(heredit* and motor* and sens* and neuropath*).hw.
99	(spina bifida? or spinal dysraphism?).ti,ab.
100	(spina bifida* or spinal dysraphism*).hw.
101	((functional* or psychogenic* or dissociative*) adj1 neurologic* adj1 (disorder* or dysfunction* or difficult*).ti,ab.
102	((functional* or psychogenic* or dissociative*) and neurologic* and (disorder* or dysfunction* or difficult*).hw.
103	((movement* or motor* or convers*) adj1 (disorder* or dysfunct*).ti,ab.
104	((movement* or motor* or convers*) and (disorder* or dysfunct*).hw.
105	((psychogenic or dissociative or non-epilep* or nonepilep*) adj1 (seizure* or convulsion* or fit or fits or spasm* or attack*).ti,ab.
106	((psychogenic* or dissociative* or non-epilep* or nonepilep*) and (seizure* or convulsion* or fit* or fits* or spasm* or attack*).hw.
107	(pseudo-seizure* or pseudoseizure*).ti,ab.
108	(pseudo-seizure* or pseudoseizure*).hw.
109	(medical* adj1 (unexplain* or un-explain*) adj1 symptom?).ti,ab.
110	(medical* and (unexplain* or un-explain*) and symptom*).hw.
111	or/1-110
112	(sociali?ation or sociali?ing or befriend*).ti,ab.
113	(sociali?ation* or sociali?ing or befriend*).hw.
114	(social* adj3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or "join in" or "joins in" or "take part" or "takes part" or rehab* or telerehab* or neurorehab*).ti,ab.
115	(social* and (function* or communicat* or life* or lives* or intergrat* or reintegrat* or skill* or club* or clubs* or support* or advis* or advice* or group* or groups* or behaviour* or behavior* or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party* or parties* or partak* or "join in*" or "joins in*" or "take part*" or "takes part*" or rehab* or telerehab* or neurorehab*).hw.
116	((family or familial or families or parent* or husband* or wife* or wife* or spous* or marriage* or co-habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*).ti,ab.
117	((family* or familial* or families* or parent* or husband* or wife* or wife* or spous* or marriage* or co-habit* or cohabit* or non-marital* or nonmarital* or marital* or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer* or peers* or relative*) and (support* or advis* or advice* or group* or groups* or behaviour* or behavior* or engag* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*).hw.
118	((family life* or family lives* or married life* or married lives* or marital life* or marital lives*) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*).ti,ab.
119	((family life* or family lives* or married life* or married lives* or marital life* or marital lives*) and (support* or advis* or advice* or group* or groups* or behaviour* or behavior* or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*).hw.

120	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) adj3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).ti,ab.
121	((religion* or religious* or spiritual* or pastoral* or psychospiritual* or faith* or cultur*) and (support* or advis* or advice* or group* or groups* or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).hw.
122	"pastoral care".ti,ab.
123	"pastoral care*".hw.
124	(communit* adj3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or "join in" or "joins in" or "take part" or "takes part")).ti,ab.
125	(communit* and (integrat* or reintegrat* or skill* or club* or clubs* or support* or advis* or advice* or group* or groups* or behaviour* or behavior* or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party* or parties* or partak* or "join in*" or "joins in*" or "take part*" or "takes part*")).hw.
126	("road safe" or "road safety" or "public transport" or driving or shopping or "pocket money").ti,ab.
127	("road safe*" or "road safety*" or "public transport*" or driving* or shopping* or "pocket money*").hw.
128	((learn* or relearn* or car or automobile or auto-mobile) adj2 drive*).ti,ab.
129	((learn* or relearn* or car* or automobile* or auto-mobile*) and drive*).hw.
130	(community adj2 living).ti,ab.
131	(community* and living*).hw.
132	"Task specific training".ti,ab.
133	"Task specific training*".hw.
134	(meaningful adj (activit* or occupation)).ti,ab.
135	(meaningful* and (activit* or occupation*)).hw.
136	(leisure* or hobby or hobbies or pastime*).ti,ab.
137	(leisure* or hobby* or hobbies* or pastime*).hw.
138	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or "join in" or "joins in" or "take part" or "takes part" or rehab* or telerehab* or neurorehab*)).ti,ab.
139	((art* or arts based* or artistic* or artistry* or craft* or drawing* or painting* or sculptur* or pottery* or ceramic* or drama* or expressive* or creative*) and (club* or clubs* or group* or groups* or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or "join in" or "joins in" or "take part" or "takes part" or rehab* or telerehab* or neurorehab*)).hw.
140	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or "join in" or "joins in" or "take part" or "takes part" or rehab* or telerehab* or neurorehab*)).ti,ab.
141	((sport* or exercise* or exercising* or fitness* or "after school*" or cultural* or recreation*) and (club* or clubs* or group* or groups* or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or "join in" or "joins in" or "take part" or "takes part" or rehab* or telerehab* or neurorehab*)).hw.
142	or/112-141
143	111 and 142
144	limit 143 to yr="2013 -Current"

Database: PsycInfo

Date of last search: APA PsycInfo <1987 to June Week 4 2023>

1	(exp Brain Injuries/ or anoxia/ or exp brain disorders/ or exp cerebrovascular disorders/ or exp headache/) not (exp Dementia/ or Cerebrovascular Accidents/)
2	((brain* or cereb* or craniocereb* or cranial or intracran* or neurocognit*) adj2 (injur* or trauma* or damage* or disease*1 or disorder* or infect* or h?emorrhag* or neoplasm* or cancer* or tumor* or insult* or impair* or ischemi* or ischaemi* or infarcti* or hypoxi* or drown*)).ti,ab.

3	(chronic* adj1 trauma* adj2 encephalopath*).ti,ab.
4	((infratentorial* or supratentorial* or hypothalam* or pituitar* or choroid plexus) adj2 (neoplasm* or cancer* or tumor* or carcinom* or adenocarcinom*)).ti,ab.
5	(brain* adj2 abscess*).ti,ab.
6	(carotid arter* adj2 (disease* or injur*)).ti,ab.
7	("basal ganglia disease*" or encephalitis or meningoencephalitis or hydrocephal* or "paraneoplastic cereb* degenerat*" or "shak* baby syndrome").ti,ab.
8	Cerebrovascular Accidents/ and (exp childhood development/ or exp adolescent development/ or pediatrics/ or puberty/)
9	(stroke? adj3 (p?ediatric* or child* or adolescen* or kid or kids or youth* or youngster* or minor or minors or underage* or under-age* or "under age*" or teen or teens or teenager* or juvenile* or boy or boys or boyhood or girl or girls or girlhood or schoolchild* or "school age*" or schoolage* or "under 16" or "under sixteen*")).ti,ab.
10	spinal cord injuries/ or (Spinal Cord/ and neoplasms/) or (Cardiovascular Disorders/ and spinal cord/) or exp myelitis/
11	((spinal* or spine?) adj2 (injur* or trauma* or tumor* or neoplasm* or cancer* or infect* or insult* or disease* or disorder* or degenrat* or compress* or vascular* or ischemi* or ischaemi* or infarct* or h?emorrhag*)).ti,ab.
12	(Central cord syndrome* or transverse myelitis).ti,ab.
13	(epidural* adj2 (neoplasm* or cancer* or tumor* or abscess*)).ti,ab.
14	((spinal* or spine?) adj2 (viral* or virus* or polio* or acquired immunodeficiency syndrome or AIDS or HIV or bacterial* or neurosyphili* or neuro-syphili* or tubercul*)).ti,ab.
15	(exp Peripheral Nervous System/ and (Injuries/ or neoplasms/)) or nervous system disorders/
16	((periph* or cranial*) adj1 (nerve? or nervous system) adj2 (injur* or trauma* or disorder* or disease* or damage* or neoplasm* or cancer* or tumor* or inflamm* or autoimmun* or paraneoplastic* or neuropath* or syndrome?)).ti,ab.
17	(Guillain* adj1 Barr*).ti,ab.
18	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 injur*).ti,ab.
19	(optic* adj1 nerve* adj2 (neoplasm* or cancer* or tumor*?)).ti,ab.
20	(brachial plexus adj1 (neuropath* or neuritis)).ti,ab.
21	(complex regional pain syndrome* or causalgia or mononeuropath* or nerve compression syndrome*).ti,ab.
22	((femoral or median or peroneal or radial or sciatic or tibial or ulnar) adj1 neuropath*).ti,ab.
23	((carpal-tunnel or piriformis-muscle or tarsal-tunnel or thoracic-outlet) adj1 syndrome*).ti,ab.
24	(pudendal neuralgia or polyneuropath* or polyradiculoneuropath* or polyradiculopath* or radiculopath*).ti,ab.
25	((abducen* or accessory or facial or glossopharyngeal or hypoglossal or oculomotor or ocular motility or olfactory or optic* or trigeminal or trochlear or vestibulocochlear) adj1 nerve* adj1 disease*).ti,ab.
26	(periph* adj2 neuropath*).ti,ab.
27	((periph* or cranial*) adj2 (nerve? or nervous system)) and lupus).ti,ab.
28	((multi-focal* or multifocal*) adj2 motor adj1 neuropath*).ti,ab.
29	((periph* or cranial*) adj2 (nerve? or nervous system)) and alcohol*).ti,ab.
30	motor neurons/ or exp muscular disorders/ or exp neuromuscular disorders/ or multiple sclerosis/ or neurodegenerative diseases/ or Progressive Supranuclear Palsy/ or corticobasal degeneration/ or Metabolism Disorders/ or Williams Syndrome/ or genetic disorders/ or rett syndrome/ or fetal alcohol syndrome/ or exp peripheral neuropathy/ or spina bifida/
31	(neurolog* adj1 (condition* or disease* or damage* or disorder* or impair*)).ti,ab.
32	((motor-neuron* or gehrig* or charcott* or kennedy*) adj1 disease*).ti,ab.
33	((amyotroph* or primary) adj1 lateral* adj1 sclero*).ti,ab.
34	(bulbar adj1 pals*).ti,ab.
35	((muscular or muscle* or bulbo) adj1 atroph* adj1 spin*).ti,ab.
36	(progressiv* adj1 (muscular or muscle*) adj1 atroph*).ti,ab.
37	((postpolio* or post-polio*) adj1 syndrome?).ti,ab.
38	(Parkinson* or duchenne* or multiple sclerosis* or aphasia or creutzfeldt-jakob or huntington* or kluver-bucy).ti,ab.
39	(muscular adj1 dystroph*).ti,ab.
40	(neuromusc* adj1 (disease* or disorder?)).ti,ab.

41	(heredit* adj1 spastic* adj1 parapleg*).ti,ab.
42	"friedreich* ataxia*".ti,ab.
43	((multiple system or olivopontocerebellar) adj1 atroph*).ti,ab.
44	(shy-drager syndrome* or striatonigral degenerat* or batten* disease?).ti,ab.
45	(progressive adj1 supranuclear adj1 pals*).ti,ab.
46	(richardson* adj1 (disease? or syndrome?)).ti,ab.
47	((corticobasal or cortico basal) adj1 degenerat*).ti,ab.
48	(white adj1 matter adj1 disorder?).ti,ab.
49	(metachromatic leukodystroph* or mitochondrial myopath* or mucopolysaccharidos*).ti,ab.
50	(lysosomal adj1 storage adj1 disorder?).ti,ab.
51	((genetic or William* or catch-22 or rett* or congenital or f?etal alcohol) adj1 (syndrome or disorder?)).ti,ab.
52	(perinatal illness* or perinatal hypoxia*).ti,ab.
53	(primary adj1 dystonia?).ti,ab.
54	(heredit* adj1 motor* adj1 sens* adj1 neuropath*).ti,ab.
55	(spina bifida? or spinal dysraphism?).ti,ab.
56	conversion disorder/
57	((functional* or psychogenic* or dissociative*) adj1 neurologic* adj1 (disorder* or dysfunction* or difficult?)).ti,ab.
58	((movement* or motor* or convers*) adj1 (disorder* or dysfunct?)).ti,ab.
59	((psychogenic or dissociative or non-epilep* or nonepilep*) adj1 (seizure* or convulsion* or fit or fits or spasm* or attack?)).ti,ab.
60	(pseudo-seizure* or pseudoseizure*).ti,ab.
61	(medical* adj1 (unexplain* or un-explain*) adj1 symptom?).ti,ab.
62	or/1-61
63	limit 62 to yr="2013 -Current"
64	limit 63 to english language
65	Social Behavior/ or Social Interaction/ or social skills/ or social communication/ or social emotional learning/ or social functioning/ or social skills training/ or socioemotional functioning/ or adaptive behavior/ or social groups/ or socialization/ or social processes/ or sociocultural factors/ or psychosocial factors/ or social support/ or perceived social support/ or social networks/ or social resources/ or support groups/ or social networks/ or online social networks/
66	(sociali?ation or sociali?ing or befriend*).tw.
67	(social* adj3 (function* or communicat* or life or lives or intergrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or counsel* or therap* or interven* or party or parties or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
68	Family Therapy/ or Family/ or Marital Relations/ or significant others/
69	((family or familial or families or parent* or husband* or wife* or wife* or spous* or marriage* or co-habit* or cohabit* or non-marital* or nonmarital* or marital or partner* or couple* or sibling* or mother* or father* or sister* or brother* or kinship* or friend* or peer or peers or relative*) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
70	((family or married or marital) adj (life or lives) adj3 (support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or rehab* or telerehab* or neurorehab*)).tw.
71	Religion/ or Pastoral Counseling/ or Spirituality/
72	((religion or religious or spiritual* or pastoral or psychospiritual* or faith or cultur*) adj3 (support* or advis* or advice or group or groups or engag* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).tw.
73	pastoral care.tw.
74	Community Involvement/ or Community Services/ or community integration/
75	(communit* adj3 (integrat* or reintegrat* or skill* or club or clubs or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or citizenship* or party or parties or partak* or join* in or tak* part)).tw.
76	(road safe* or public transport or driving or shopping or pocket money).tw.
77	((learn* or relearn* or car or automobile or auto-mobile) adj2 drive*).tw.

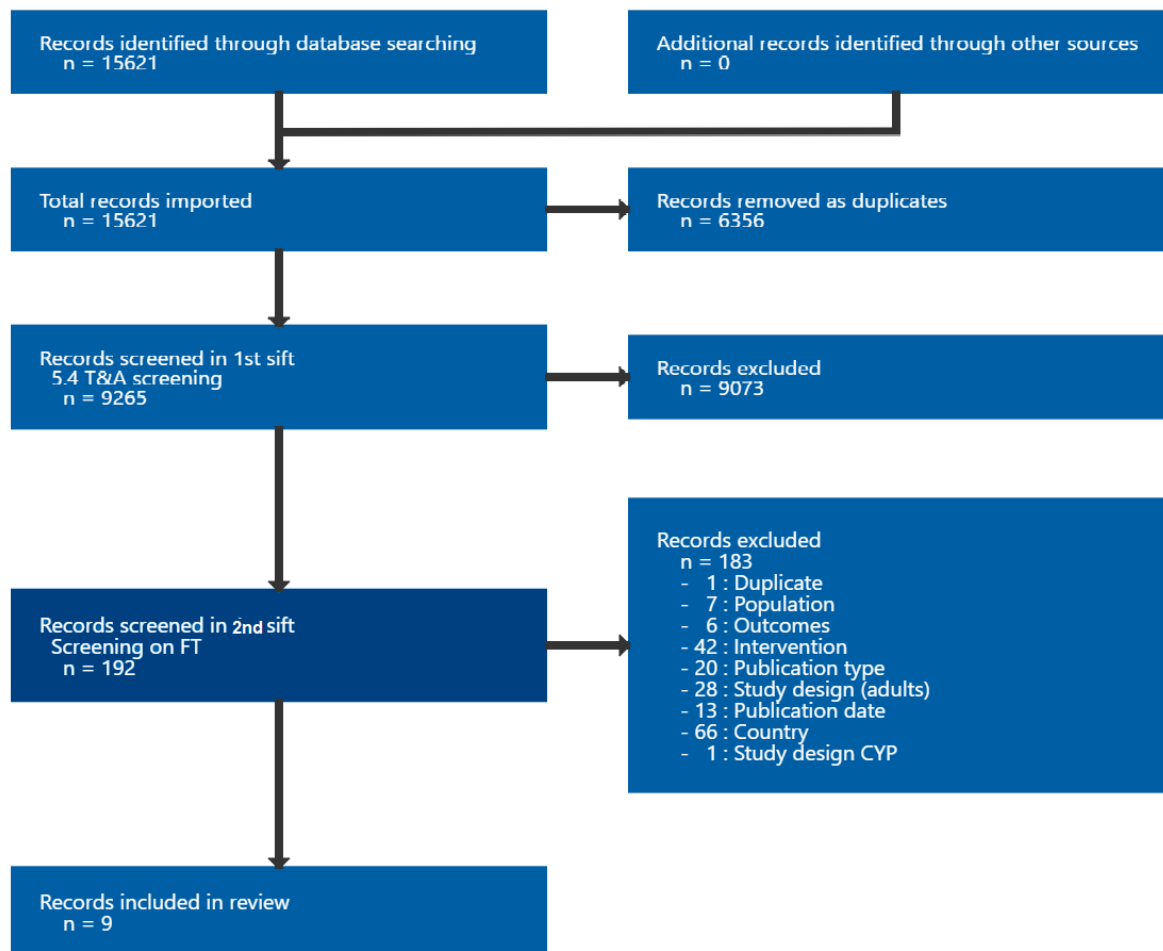
78	((money* or budget* or finances or financial or income*) adj2 (skill* or support* or advis* or advic* or manag*)).tw.
79	(community adj2 living).tw.
80	Task specific training.tw.
81	(meaningful adj (activit* or occupation)).tw.
82	exp arts/ or Recreation/ or Leisure Time/ or interests/ or hobbies/ or Adaptive Sports/ or Sports/
83	(leisure* or hobby or hobbies or pastime*).tw.
84	((art or arts based or artistic* or artistry* or craft* or drawing or painting* or sculptur* or pottery or ceramic* or drama* or expressive* or creative) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
85	((sport* or exercise* or exercising or fitness or after school or cultural or recreation*) adj3 (club or clubs or group or groups or support* or engag* or activit* or participat* or interact* or involv* or network* or partak* or join* in or tak* part or rehab* or telerehab* or neurorehab*)).tw.
86	((sport* or physical activit* or exercise* or exercising or fitness) and ((fatigue* or tired* or motivat*) adj2 (skill* or support* or advis* or advice or educat* or assist* or help* or aid or stop* or manage*))).tw.
87	((online adj (club or clubs or group* or communit* or forum*)) or social media).tw.
88	Human Courtship/ or Love/
89	((romantic or dating or love or personal) adj (life or lives)).tw.
90	((romantic or romance or dating or love or courtship) adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or app or apps or online or rehab* or telerehab* or neurorehab*)).tw.
91	(relationship* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or activit* or participat* or interact* or involv* or counsel* or therap* or educat* or psycholog* or rehab* or telerehab* or neurorehab*)).tw.
92	Interpersonal Interaction/ or Loneliness/ or Interpersonal Relationships/
93	social cognition/ or social categorization/
94	(interpersonal adj3 (skill* or support* or advis* or advice or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or rehab* or telerehab* or neurorehab*)).tw.
95	(social cognit* adj3 (skill* or support* or advis* or advice or group or groups or behaviour or behavior or activit* or assist* or educat* or training or counsel* or rehab* or telerehab* or neurorehab*)).tw.
96	psychoeducation*.tw.
97	Sex/ or Sex Education/ or Sex Work/ or psychosexual behavior/ or sexual health/ or "sexual intercourse (human)"/ or orgasm/ or Masturbation/ or Sexual Satisfaction/
98	((sex or sexual) adj3 (life or lives or pleasure* or intimacy or intimate* or intercourse* or satisfy or satisfaction or position* or skill* or support* or advis* or advice or group or groups or behaviour or behavior or engag* or relation* or activit* or participat* or interact* or involv* or network* or assist* or educat* or training or counsel* or therap* or aid or device* or equipment or rehab* or telerehab* or neurorehab*)).tw.
99	((sex adj1 (worker or escort or service*)) or prostitut*).tw.
100	((self or partner* or solo or sex or sexual) adj stimulat*) or (vibrat* adj (stimulator* or device*)) or vibrator* or intimerider*).tw.
101	Prostheses/ and Penis/
102	((penile or penis) adj2 (prosthe* or implant* or artificial)) or ((corpus or corporal) adj3 dilat*).tw.
103	((erection or erectile or masturbat*) adj2 (support or aid or device* or help* or assist*).tw.
104	birth control/ or family planning/ or Safe Sex/
105	(contraception or contraceptive* or (family adj2 plan*)).tw.
106	or/65-105
107	64 and 106
108	clinical trial.md.
109	Clinical trials/
110	Randomized controlled trials/
111	Randomized clinical trials/
112	assign*.ti,ab.
113	allocat*.ti,ab.
114	crossover*.ti,ab.
115	cross over*.ti,ab.

116	((doubl* or singl*) adj blind*).ti,ab.
117	factorial*.ti,ab.
118	placebo*.ti,ab.
119	random*.ti,ab.
120	volunteer*.ti,ab.
121	trial?.ti,ab.
122	or/108-121
123	(meta analysis or "systematic review").md.
124	META ANALYSIS/
125	SYSTEMATIC REVIEW/
126	(meta analy* or metanaly* or metaanaly*).ti,ab.
127	((systematic* or evidence*) adj2 (review* or overview*)).ti,ab.
128	(reference list* or bibliograph* or hand search* or manual search* or relevant journals).ab.
129	(search strategy or search criteria or systematic search or study selection or data extraction).ab.
130	(search* adj4 literature).ab.
131	((pool* or combined) adj2 (data or trials or studies or results)).ab.
132	(medline or pubmed or cochrane or embase or psychlit or psyclit or cinahl or science citation index or bids or cancerlit).ab.
133	or/123-132
134	107 and (122 or 133)

Appendix C Effectiveness evidence study selection

Study selection for: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Figure 1: Study selection flow chart



Appendix D Evidence tables

Evidence tables for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Table 5: Evidence tables

Blikman 2017

Bibliographic Reference Blikman, Lyan Jm; van Meeteren, Jetty; Twisk, Jos Wr; de Laat, Fred Aj; de Groot, Vincent; Beckerman, Heleen; Stam, Henk J; Bussmann, Johannes Bj; Effectiveness of energy conservation management on fatigue and participation in multiple sclerosis: A randomized controlled trial.; Multiple sclerosis (Houndmills, Basingstoke, England); 2017; vol. 23 (no. 11); 1527-1541

Study details

Country/ies where study was carried out	Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	November 2011 - March 2014
Inclusion criteria	- Definitive diagnosis of multiple sclerosis (MS), - Severely fatigued (Checklist Individual Strength subscale fatigue ≥ 35), - Aged between 18 and 70 years, - Ambulant (Expanded Disability Status Scale score ≤ 6.0), - No evident signs of an MS exacerbation or a corticosteroid treatment <3months, - No infections, anaemia, thyroid dysfunction.
Exclusion criteria	- Depression (Hospital Anxiety and Depression Scale subscale depression >11),

	- Severe co-morbidity (Cumulative Illness Rating Scale item scores ≥ 3), - Primary sleep disorders, - Current pregnancy or having given birth <3 months, - Newly initiated pharmacological (e.g. Amantadine) or non-pharmacological treatment for fatigue <3months.
Patient characteristics	N=86 adults with multiple sclerosis - Energy conservation management: n=42 - MS nurse: n=44 Age in years [Mean (SD)]: - Energy conservation management: 47.7 (11.0) - MS nurse: 46.6 (11.5) Sex (M/F): - Energy conservation management: n=8/n=34 - MS nurse: n=14/n=30 Time since diagnosis in years [Mean (SD) not reported], [Median (IQR)]:

	- Energy conservation management: 6.5 (3.7–17.3) - MS nurse: 7.5 (3–14) Chronic neurological disorder category: Progressive neurological diseases.
Intervention(s)/control	Intervention Name: Energy conservation management (ECM) Protocol intervention group: Interventions to support participation in recreation and leisure Delivery setting: Outpatient clinic Number/frequency of sessions: 12 individual face-to-face sessions of 45-minutes Duration: 16 weeks Practitioner: Occupational Therapist The ECM programme was adapted to fit 12 one-on-one 45 minutes sessions over the 4-month intervention period. Dose and duration of the sessions were based on clinical practice, knowledge about time needed for a behavioural change and previous trials. Control Name: MS nurse consultation Protocol description: Control (usual care) Delivery setting: Outpatient clinic

	Number/ frequency of sessions: 3 x 45-minute sessions Duration: 3 times over 16 weeks Practitioner(s): Nurse The content of the consultations led by the MS nurse covered two important aspects in relation to the experimental intervention: (1) reliable information on MS-related fatigue and (2) guidance from the experienced MS nurse that aimed to reassure the patient that his or her concerns or questions were being taken seriously.
Duration of follow-up	2, 4, 6, and 12-months post-intervention
Sources of funding	Not industry funded.
Sample size	N= 86 - Energy conservation management: n=42 - MS nurse: n=44
Other information	The study was part of the multi-trial programme Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management (TREFAMS-ACE).

IQR: interquartile range; MS: multiple sclerosis; N/n: number of participants; SD: standard deviation

Outcomes

Study timepoints

- Baseline
- Overall timepoint

Energy conservation management versus MS nurse: Social participation

Social participation as measured by IPA: all sub-scales – Polarity – Lower values are better

Outcome	Energy conservation management versus MS nurse, overall timepoint*, N = 42 vs 44
IPA: autonomy indoors Mean difference - adjusted for centre, gender, exacerbations and time since diagnosis (95% CI)	0.03 (-0.15 to 0.21)
IPA: family role Mean difference - adjusted for centre, gender, exacerbations and time since diagnosis (95% CI)	0.02 (-0.20 to 0.25)
IPA: autonomy outdoors Mean difference - adjusted for centre, gender, exacerbations and time since diagnosis (95% CI)	0.02 (-0.19 to 0.23)
IPA: social relations Mean difference - adjusted for centre, gender, exacerbations and time since diagnosis (95% CI)	0.2 (0.03 to 0.36)
IPA: work/education Mean difference - adjusted for centre, gender, exacerbations and time since diagnosis (95% CI)	0 (-0.22 to 0.23)

**mean value of all different timepoints covered in the study*

CI: confidence interval; IPA: Impact on Participation and Autonomy; N/n: number of participants

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns <i>(Differences in baseline characteristics, however no p-value reported if statistically significant. Mean difference between ECM and MS nurse adjusted for centre, gender, exacerbations, and time since diagnosis.)</i>
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. ITT analyses were used.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(All participants randomised were analysed.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: Impact on Participation and Autonomy. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(TREFAMS-ACE programme protocol published. Results of all analyses published in study or supplementary appendix as per protocol.)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

ECM: energy conservation management; ITT: intention to treat analysis; MS: multiple sclerosis; TREFAMS-ACE: Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management

Borgen 2023

Bibliographic Reference Borgen, Ida M H; Lovstad, Marianne; Hauger, Solveig L; Forslund, Marit V; Kleffeldgard, Ingerid; Andelic, Nada; Sveen, Unni; Soberg, Helene L; Sigurdardottir, Solrun; Winter, Laraine; Lindstad, Marte Orud; Brunborg, Cathrine; Roe, Cecilie; Effect of an Individually Tailored and Home-Based Intervention in the Chronic Phase of Traumatic Brain Injury: A Randomized Clinical Trial.; JAMA network open; 2023; vol. 6 (no. 5); e2310821

Study details

Country/ies where study was carried out	Norway
Study type	Randomised controlled trial (RCT)
Study dates	June 5, 2018 to December 14, 2020
Inclusion criteria	- Traumatic brain injury (TBI) diagnosis; radiologically verified intracranial abnormalities, - Age 18-72 years; age >16 years at time of injury, - Time since injury >2years, - Lives at home, - Ongoing TBI-related cognitive, emotional, and/or physical problems and/or reduced physical and mental health and/or difficulties with participation in activities with family, friends, and/or in the community, - Able to use computer or tablet computer; internet access (added criterion because of the COVID-19 pandemic).
Exclusion criteria	- Unable to provide informed consent, - Severe progressive neurological condition or severe ongoing psychiatric disorder that may confound outcomes, - Unable to collaborate in goal-setting process, - Insufficient command of Norwegian language (cannot communicate with rehabilitation therapists or respond to questionnaires), - Active substance misuse and/or violent tendencies that may put rehabilitation therapists at risk.
Patient characteristics	N=120 adults with traumatic brain injury - Home-based, goal-orientated, and individualised rehabilitation: n=60

	- Standard care: n=60 Age in years [Mean (SD) not reported], [Median (IQR)]: - Home-based, goal-orientated, and individualised rehabilitation : 45.5 (29.5-54.0) - Standard care: 49.0 (33.0-60.5) Sex (M/F): - Home-based, goal-orientated, and individualised rehabilitation : n=44/n=16 - Standard care: n=41/n=19 Time since diagnosis in months [Mean (SD) not reported], [Median (IQR)]: - Home-based, goal-orientated, and individualised rehabilitation : 52.0 (44.0-83.0) - Standard care: 53.5 (44.0-80.0) Chronic Neurological Disorder Category: Acquired Brain Injury
Intervention(s)/control	Intervention Name: Home-based, goal-orientated, and individualised rehabilitation Protocol intervention group: Interventions to support participation Delivery setting: In-home/online/telephone Number/frequency of sessions: 8 sessions Duration: In-home/online (2 hours); telephone (1 hour)

	Practitioner: Four experienced rehabilitation therapists (psychologist, neuropsychologist, physician, and physiotherapist) delivered the intervention, and 1 rehabilitation therapist followed up with each participant throughout the intervention. Participants were asked whether they wished to start working on any problems or another TBI-related difficulty. When a problem area was chosen, the rehabilitation therapist then guided the participant to brainstorm about the nature of the problem and the changes the participant wished to achieve. A SMART goal approach was used. Rehabilitation strategies for goal attainment were then established in an action plan. Strategies were based on suggestions made by participants, family members, and rehabilitation therapists and mainly involved environmental support and compensatory strategies. Control Name: Standard care Protocol description: Control (standard care) Delivery setting: Not applicable Number/frequency of sessions: Not applicable Duration: Not applicable Practitioner: Not applicable The control group continued to receive any concomitant care (registered at each time point) they were already receiving, with no additional treatment. In Norway, municipal health care services are mainly responsible for treatment in the chronic phase of TBI. There are no specialized TBI services in the communities, but specialized health care services at hospitals are provided when needed.
Duration of follow-up	4 months and 12 months post-intervention
Sources of funding	Not industry funded
Sample size	N=120 randomised - Home-based, goal-orientated, and individualised rehabilitation: n=60 - Standard care: n=60

IQR: interquartile range; N/n: number of participants; SD: standard deviation; TBI: traumatic brain injury

Outcomes

Study timepoints

- Baseline
- 4 months post-intervention
- 12 months post-intervention

Home-based, goal-orientated, and individualised rehabilitation program versus standard care: Social participation; physical and mental health related quality of life and social care related quality of life

Social participation as measured by QOLIBRI overall score - Polarity - Higher values are better

Social participation as measured by PART-O social subscale score - Polarity - Higher values are better

Physical and mental health related quality of life and social care related quality of life as measured by EQ-5D-5L - Polarity - Higher values are better

Outcome	Home-based, goal-orientated, and individualised rehabilitation, 4-months post-intervention, N = 58	Home-based, goal-orientated, and individualised rehabilitation, 12-months post-intervention, N = 57	Standard care, 4-months post-intervention, N = 55	Standard care, 12-months post-intervention, N = 55
PART-O social subscale score	-0.08 (-0.27 to 0.1)	-0.14 (-0.32 to 0.05)	-0.13 (-0.32 to 0.05)	-0.26 (-0.44 to -0.07)
change in score from baseline				
Mean (95% CI)				
EQ-5D-5L overall score	0.04 (0.01 to 0.07)	0.05 (0.01 to 0.08)	0.01 (-0.02 to 0.04)	-0.003 (-0.04 to 0.03)

Outcome	Home-based, goal-orientated, and individualised rehabilitation, 4-months post-intervention, N = 58	Home-based, goal-orientated, and individualised rehabilitation, 12-months post-intervention, N = 57	Standard care, 4-months post-intervention, N = 55	Standard care, 12-months post-intervention, N = 55
change in score from baseline				
Mean (95% CI)				
QOLIBRI overall score	3.72 (-0.51 to 7.95)	3.97 (-0.29 to 8.23)	-0.06 (-4.36 to 4.25)	1.15 (-3.16 to 5.45)
change in score from baseline				
Mean (95% CI)				

CI: confidence interval; EQ-5D-5L: EuroQol 5-dimension 5-level; N/n: number of participants; PART-O: participation and recombined tools-objective; QOLIBRI: quality of life after brain injury;

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low (Internet-based block randomization with minimization will be used to ensure randomization and complete allocation concealment. Baseline characteristics similar between both groups.)
Domain 2a: Risk of bias due to deviations from the intended	Risk of bias for deviations from the intended interventions	Low (Although participants and personnel were aware of interventions allocated,

Section	Question	Answer
interventions (effect of assignment to intervention)	(effect of assignment to intervention)	<i>there were no deviations from intended interventions. ITT analyses were used.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(5% of participants were lost to follow-up at the final assessment time-point.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: QOLIBRI overall scale score; PART-O social subscale score; EQ-5D-5L. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol available.)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

EQ-5D-5L: EuroQol 5-dimension 5-level; ITT: intention-to-treat; PART-O: participation and recombined tools-objective; QOLIBRI: quality of life after brain injury

Heine 2017

Bibliographic Reference Heine, Martin; Verschuren, Olaf; Hoogervorst, Erwin Lj; van Munster, Erik; Hacking, Hub Ga; Visser-Meily, Anne; Twisk, Jos W; Beckerman, Heleen; de Groot, Vincent; Kwakkel, Gert; Does aerobic training alleviate fatigue and improve societal participation in patients with multiple sclerosis? A randomized controlled trial.; Multiple sclerosis (Houndmills, Basingstoke, England); 2017; vol. 23 (no. 11); 1517-1526

Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	October 2011 - October 2014
Inclusion criteria	- Patients with definite multiple sclerosis (MS) - Age ≥ 18 and ≤ 70 years - Ambulant (Expanded Disability Status Scale ≤ 6.0) - Severe fatigue (Checklist Individual Strength fatigue sub-scale ≥ 35) and - No signs of an MS exacerbation or corticosteroid treatment < 3 months
Exclusion criteria	- Severe mood disorders (Hospital Anxiety and Depression Scale – depression subscale > 11) - Severe co-morbidity (Cumulative Illness Rating Scale item scores ≥ 3) - Current pregnancy or given birth < 3 months - Newly initiated pharmacological (e.g. amantadine) or non-pharmacological treatment for fatigue (e.g. structured aerobic training) < 3 months
Patient characteristics	N= 89 adults with multiple sclerosis - Aerobic Training: n=43 - MS nurse: n=46 Age in years [Mean (SD)]:

	- Aerobic Training: 43.1 (9.7) - MS nurse: 48.2 (9.2)* Sex (M/F): - Aerobic Training: n=11/n=32 - MS nurse: n=13/n=33 Time since diagnosis in years [Mean (SD) not reported], [Median (IQR)]: - Aerobic Training: 7 (2-10) - MS nurse: 12 (2-19)* Chronic neurological disorder category: Progressive neurological disease *Significant ($p<0.05$) between-group difference at baseline
Intervention(s)/control	Intervention Name: Aerobic Training Protocol intervention group: Interventions to support participation in recreation and leisure

	Delivery setting: Outpatient clinic (12 sessions) and home (36 sessions) Number/frequency of sessions: 30 minutes x 3 times a week Duration: 16 weeks Practitioner: Physiotherapist Each training session consisted of 30-minutes of aerobic interval training on an electro-magnetic cycle ergometer. Each training session entailed six interval cycles consisting of 3-minutes at 40%, 1-minute at 60% and 1-minute at 80% of peak power. Peak power was determined at the start of training and re-evaluated after 8weeks by means of a cardiopulmonary exercise test until voluntary exhaustion. Control See Blikman 2017
Duration of follow-up	2, 4, 6, and 12-months post-intervention
Sources of funding	Not industry funded.
Sample size	N= 89 - Aerobic training: n=43 - MS nurse: n=46
Other information	The study was part of the multi-trial programme Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management (TREFAMS-ACE). Results not adjusted for centre, gender, exacerbations and time since diagnosis.

IQR: interquartile range; N/n: number of participants; SD: standard deviation

Outcomes

Study timepoints

- Baseline
- 8 weeks post intervention
- 26 weeks post intervention
- 52 weeks post intervention

Aerobic training versus MS nurse: Social participation

Social participation as measured by IPA: all sub-scales - Polarity - Lower values are better

Outcome	Aerobic training versus MS nurse, 8-weeks post-intervention, N = 37 vs 36	Aerobic training versus MS nurse, 16-weeks post-intervention, N = 36 vs 39	Aerobic training versus MS nurse, 26-weeks post-intervention, N = 37 vs 34	Aerobic training versus MS nurse, 52-weeks post-intervention, N = 33 vs 30
IPA: autonomy indoors Mean difference between group effect (SE)	-0.027 (0.087)	-0.112 (0.088)	0.084 (0.091)	-0.007 (0.093)
IPA: family role Mean difference between group effect (SE)	-0.031 (0.121)	-0.082 (0.122)	0.107 (0.125)	-0.005 (0.127)
IPA: autonomy outdoors Mean difference between group effect (SE)	-0.078 (0.125)	-0.097 (0.125)	0.059 (0.128)	0.096 (0.129)

Outcome	Aerobic training versus MS nurse, 8-weeks post-intervention, N = 37 vs 36	Aerobic training versus MS nurse, 16-weeks post-intervention, N = 36 vs 39	Aerobic training versus MS nurse, 26-weeks post-intervention, N = 37 vs 34	Aerobic training versus MS nurse, 52-weeks post-intervention, N = 33 vs 30
IPA: social relations Mean difference between group effect (SE)	0.033 (0.092)	-0.138 (0.092)	0.039 (0.095)	0.070 (0.096)
IPA: work/education Mean difference between group effect (SE)	0.005 (0.166)	0.225 (0.167)	0.133 (0.172)	0.168 (0.174)

IPA: impact on participation and autonomy; MS: multiple sclerosis; N/n: number of participants; SE: standard error

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low (Randomization was performed by an independent researcher, using an online concealed computer-generated randomization scheme with random variable block sizes.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low (Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. ITT analyses were used.)
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High (23% and 35% of participants in the intervention and control groups, respectively were lost to follow-up at the final assessment time-point; all

Section	Question	Answer
		<i>results were biased by missing data; loss to follow-up not balanced between groups so missingness may depend on true value.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: Impact on Participation and Autonomy. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(TREFAMS-ACE programme protocol available. Authors didn't publish full adjusted analyses in supplementary appendices, simply reported no difference between adjusted and crude analyses.)</i>
Overall bias and Directness	Risk of bias judgement	High
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

ITT: intention to treat analysis; TREFAMS-ACE: Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management

Jongen 2019

Bibliographic Reference Jongen, Peter Joseph; van Mastrigt, Ghislaine A; Heerings, Marco; Visser, Leo H; Ruimschotel, Rob P; Husaarts, Astrid; Duyverman, Lotte; Valkenburg-Visser, Joyce; Cornelissen, Job; Bos, Michel; van Droffelaar, Maarten; Donders, Rogier; Effect of an intensive 3-day social cognitive treatment (can do treatment) on control self-efficacy in patients with relapsing remitting multiple sclerosis and low disability: A single-centre randomized controlled trial.; PloS one; 2019; vol. 14 (no. 10); e0223482

Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	February 2013 - December 2016
Inclusion criteria	Eligibility criteria for people with multiple sclerosis: - Diagnosis relapsing remitting multiple sclerosis (RRMS) since at least one year, - EDSS score <4.0, no symptoms suggestive of a relapse, no relapse in the preceding four weeks, willing and capable of participating in the investigations, and having access to the internet for performing the web-based assessments. Eligibility criteria for support partners: - Willing and capable of participating in the investigations, and having access to the internet
Exclusion criteria	Not reported
Patient characteristics	N= 158 adults with multiple sclerosis - 'Can do treatment' (CDT): n=79 - Waitlist control: n=79 Age in years [mean (SD)]: - CDT: 40 (8.7) - Waitlist control: 40 (9.4) Sex (M/F):

	- CDT: n=10/n=69 - Waitlist control: n=9/n=70 Time since diagnosis in years [Mean (SD)]: - CDT: 6.5 (5.6) - Waitlist control: 6.5 (5.3) Chronic neurological disorder category: Progressive neurological diseases
Intervention(s)/control	Intervention Name: Can Do Treatment (CDT) Protocol intervention group: Interventions to support participation Delivery setting: Rehabilitation facility Number/frequency of sessions: 2 large group sessions, 5 small group sessions, consultations (carrousel), a theatre evening, and start of day joint activity (optional) Duration: 3-day intensive programme Practitioner: The multidisciplinary team included a psychiatrist, psychiatric nurse, neurologist, registered nurse specialized in MS, physiotherapist, dance therapist, and a person with MS CDT is a social cognitive theory-based intervention aiming to uncover and promote existing capabilities, with the notion 'stressor' as central concept.

	Control Name: Waitlist control Protocol description: Control (waitlist) Delivery setting: Not applicable. Number/ frequency of sessions: Not applicable. Duration: Not applicable. Practitioner(s): Not applicable.
Duration of follow-up	1-month, 3-month, and 6-months post-intervention
Sources of funding	Not industry funded.
Sample size	N=158 - CDT: n=79 - Waitlist control: n=79

EDSS: expanded disability status scale; N/n: number of participants; SD: standard deviation

Outcomes

Study timepoints

- Baseline
- 1 month follow-up
- 3 months follow-up

Can Do Treatment versus waitlist control: Social participation

Social participation as measured by IPA limitations - Polarity - Lower values are better

Outcome	Can Do Treatment, 1-month post- intervention, N = 68	Can Do Treatment, 3-months post- intervention, N = 64	Can Do Treatment, 6-months post- intervention, N = 54	Waitlist control, 1- month post- intervention, N = 67	Waitlist control, 3- months post- intervention, N = 75	Waitlist control, 6- months post- intervention, N = 63
IPA limitations	-0.1 (0.35)	-0.1 (0.35)	-0.2 (0.35)	0.1 (0.35)	0.1 (0.35)	0 (0.35)
change from baseline score						
Mean (SD)						

IPA: Impact on Participation and Autonomy; N/n: number of participants; SD: standard deviation

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low (Patients were randomized in a 1:1 ratio to CDT or control group via stratified block randomization with disease duration and gender as blocking factors using block sizes of four. No information whether allocation concealment occurred. No significant baseline differences.)
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low (Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. ITT analyses were used.)

Section	Question	Answer
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	High <i>(28% and 20% of participants in the intervention and control groups, respectively were lost to follow-up at the final assessment time-point; no evidence results not biased by missing data; loss to follow-up not balanced between groups so missingness may depend on true value.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	High <i>(The questionnaires used were all validated and widely used tools: Impact on Participation and Autonomy. Standardised and validated measurement tools implemented by assessors aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol available.)</i>
Overall bias and Directness	Risk of bias judgement	High
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

CDT: Can Do Treatment; ITT: intention to treat analysis

Levy 2021

Bibliographic Reference Levy, Ben B; Luong, Dorothy; Bayley, Mark T; Sweet, Shane N; Voth, Jennifer; Kastner, Monika; Nelson, Michelle L A; Jaglal, Susan B; Salbach, Nancy M; Wilcock, Ruth; Thoms, Carla; Shepherd, John; Munce, Sarah E P; A Pilot Feasibility Randomized Controlled Trial on the Ontario Brain Injury Association Peer Support Program.; Journal of clinical medicine; 2021; vol. 10 (no. 13)

Study details

Country/ies where study was carried out	Canada
Study type	Randomised controlled trial (RCT)
Study dates	May 2018 to July 2020
Inclusion criteria	- Community based (i.e., no longer participating in a comprehensive rehabilitation program), - Had moderate-to-severe traumatic brain injury (TBI) (defined as a score of less than 12 on the Glasgow Coma Scale, or loss of consciousness and admittance to a hospital), - 18 years of age or older, - Fluent in English, - Able to provide informed consent or had an available proxy to provide informed consent.
Exclusion criteria	- Previously participated in the Ontario Brain Injury Association Peer support programme or were currently part of another peer support or self-management program, - Were medically unstable, - Active suicidal ideation.
Patient characteristics	N=13 adults with traumatic brain injury

	- Ontario Brain Injury Association Peer support programme: n=6 - Waitlist control: n=7 Age in years [Mean (SD)]*: - Ontario Brain Injury Association Peer Support Program : 50.8 (12.92) - Waitlist control: 35.6 (11.7) Sex (M/F): - Ontario Brain Injury Association Peer Support Program: n=4/n=2 - Waitlist control: n=5/n=2 Time since diagnosis in years: Not reported Chronic neurological disorder category: Acquired Brain Injury *waitlist control is significantly younger than intervention group, p=0.047
Intervention(s)/control	Intervention

	Name: Ontario Brain Injury Association Peer Support Program Protocol intervention group: Interventions to support participation Delivery setting: Community Number/frequency of sessions: Once per week Duration: 16 weeks Practitioner: Mentor Once a mentee was enrolled in the study and assigned a study group, the peer support coordinator would match the mentees in the intervention group with a peer mentor. The focus of the Ontario Brain Injury Association Peer Support Program was unidirectional and on the mentee. Mentee-mentor pairs had the flexibility to change the length and, or frequency of their meetings based on individual needs and, or preferences. Control Name: Waitlist control Protocol description: Control (waitlist) Delivery setting: Not applicable Number/ frequency of sessions: Not applicable Duration: Not applicable Practitioner(s): Not applicable
Duration of follow-up	2 and 4 months post-intervention
Sources of funding	Not industry funded.

Sample size	N=13
	- Ontario Brain Injury Association Peer Support Program: n=6
	- Waitlist control: n=7

N/n: number of participants; SD: standard deviation; TBI: traumatic brain injury

Outcomes

Study timepoints

- Baseline
- 4 months post-intervention

Ontario Brain Injury Association Peer Support Program versus waitlist control: Community reintegration

Community reintegration as measured by CIQ overall score - Polarity - Higher values are better

Outcome	Ontario Brain Injury Association Peer Support Program versus waitlist control, 4-months post-intervention, N= 6 vs 7
CIQ overall score	0.617 (-0.639 to 1.872)
Hedge’s g effect size – mixed ANOVA data (95% CI)	

ANOVA: analysis of variance; CI: confidence interval; CIQ: community integration questionnaire; N/n: number of participants

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Low <i>(Web-based randomization service by a research coordinator who was not involved in quantitative data collection, outcome assessment, or data analysis. Allocation sequence was concealed using sequentially numbered, sealed, opaque envelopes until mentee participants were assigned to a group.)</i>
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. All participants analysed in their randomised groups.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(No participants lost to follow-up)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: Community Integration Questionnaire. Standardised and validated measurement tools implemented by assessors aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol available.)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

Nooijen 2017

Bibliographic Reference Nooijen, Carla Fj; Stam, Henk J; Sluis, Tebbe; Valent, Linda; Twisk, Jos; van den Berg-Emons, Rita Jg; A behavioral intervention promoting physical activity in people with subacute spinal cord injury: secondary effects on health, social participation and quality of life.; Clinical rehabilitation; 2017; vol. 31 (no. 6); 772-780

Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	January 2011 - August 2013
Inclusion criteria	- people with subacute spinal cord injury - in initial inpatient rehabilitation - dependent on a manual wheelchair - able to handcycle - 18 - 65 years old.
Exclusion criteria	- Insufficient comprehension of Dutch - A progressive disease or a psychiatric condition that could interfere with participation.
Patient characteristics	N=45 adults with subacute spinal cord injury - Behavioural intervention: n=23 - Standard care: n=22 Age in years [Mean (SD)]:

	- Behavioural intervention : 44 (15) - Standard care: 44 (15) Sex (M/F): - Behavioural intervention: n=17/n=3 - Standard care: n=16/n=3 Time since injury in days [Mean (SD)]: - Behavioural intervention: 139 (67) - Standard care: 161 (81) Chronic neurological disorder category: Acquired spinal cord injury.
Intervention(s)/control	Intervention Name: Behavioural intervention Protocol intervention group: Interventions to support participation in recreation and leisure Delivery setting: Rehabilitation facility inpatient and outpatient

	Number/frequency of sessions: 13 individual face-to-face sessions: 2 sessions were scheduled per month from 2 months before discharge until 3 months after discharge; thereafter, in the following 3 months there was 1 session per month. Duration: 8 months - beginning 2 months before and ending 6 months after discharge from inpatient rehabilitation Practitioner: Coach trained in motivational interviewing Additional behavioural intervention aimed at increasing the amount of everyday physical activity after discharge from inpatient rehabilitation. Control Name: Standard care Protocol description: Control (standard care) Delivery setting: Rehabilitation facility inpatient and outpatient Number/ frequency of sessions: Not applicable. Duration: Not applicable. Practitioner(s): Not applicable. Continued to receive any concomitant care they were already receiving, with no additional treatment.
Duration of follow-up	Discharge, 6-months, and 12-months post-intervention
Sources of funding	Not industry funded.
Sample size	N=45 Behavioural intervention: n=23 Standard care: n=22

N/n: number of participants; SD: standard deviation

Outcomes

Study timepoints

- Baseline
- 6 months post intervention
- 12 months post intervention

Behavioural intervention versus standard care: Social participation

Social participation as measured by IMPACT-S: participation - Polarity - Higher values are better

Outcome	Behavioural intervention versus MS nurse, 6-months post-intervention, N = 23 vs 22	Behavioural intervention versus MS nurse, 12-months post-intervention, N = 23 vs 22
IMPACT-S Mean difference - adjusted for rehabilitation centre, sex, and age (95% CI)	4.47 (0.07 to 8.87)	9.91 (3.34 to 16.48)

CI: confidence interval; IMPACT-S: International Classification of Functioning, Disability and Health measure of participation and activities; N/n: number of participants; MS: multiple sclerosis

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns (No information on randomisation process or allocation concealment. Baseline characteristics balanced at baseline.)

Section	Question	Answer
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. Participants analysed in groups randomised to.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Some concerns <i>(52% of participants in the intervention and control groups were lost to follow-up at the final assessment time-point; all results at risk of bias by missing data; loss to follow-up balanced between groups so missingness probably not dependent on true value.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: IMPACT-S. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol available. All analyses reported in the study.)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

IMPACT-S: International Classification of Functioning, Disability and Health measure of participation and activities

van den Akker 2017

Bibliographic Reference van den Akker, Lizanne E; Beckerman, Heleen; Collette, Emma H; Twisk, Jos W; Bleijenbergh, Gijs; Dekker, Joost; Knoop, Hans; de Groot, Vincent; Cognitive behavioral therapy positively affects fatigue in patients with multiple sclerosis: Results of a randomized controlled trial.; Multiple sclerosis (Houndmills, Basingstoke, England); 2017; vol. 23 (no. 11); 1542-1553

Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	November 2011 - July 2014
Inclusion criteria	- Definitive diagnosis of multiple sclerosis (MS) - Experience of severe fatigue (Checklist Individual Strength fatigue sub-scale ≥ 35) - Ambulatory (Expanded Disability Status Scale (score ≤ 6)) - No signs of exacerbation - No clinical depression (Hospital Anxiety and Depression Scale score > 11) - No severe comorbid disorders (medical history taking and results of the blood draw)
Exclusion criteria	Not reported
Patient characteristics	N=91 adults with multiple sclerosis - Cognitive Behavioural Therapy: n=44 - MS nurse: n=47 Age in years [Mean (SD)]:

	- Cognitive Behavioural Therapy: 50.6 (8.3) - MS nurse: 46.4 (11.6) Sex (M/F): - Cognitive Behavioural Therapy: n= 13/n=31 - MS nurse: n= n=8/39 Time since diagnosis in years [Mean (SD) not reported], [Median (IQR)]: - Cognitive Behavioural Therapy: 8.2 (2.9–14.2) - MS nurse: 5.2 (2.1–1.5) Chronic neurological disorder category: Progressive Neurological Diseases
Intervention(s)/control	Intervention Name: Cognitive Behavioural Therapy Protocol intervention group: Interventions to support participation in recreation and leisure Delivery setting: Outpatient clinic Number/frequency of sessions: Individual face-to-face sessions - 8 sessions in the first 2months, 4 sessions in the last 2months

	Duration: 16 weeks Practitioner: CBT Therapist (CBT therapists received supervision every other week from an experienced CBT psychologist) The CBT protocol consists of 10 modules: formulating goals, regulating sleep and wake pattern, changing beliefs regarding MS, changing beliefs regarding fatigue, reducing the focus on fatigue, regulation of physical, social, and mental activity, addressing the role of the environment, and handling pain. Control See Blikman 2017
Duration of follow-up	2, 4, 6, and 12-months post-intervention
Sources of funding	Not industry funded.
Sample size	n=91 - CBT: n=44 - MS nurse: n=47
Other information	The study was part of the multi-trial programme Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management (TREFAMS-ACE)

IQR: interquartile range; MS: multiple sclerosis; *N/n*: number of participants; SD: standard deviation

Outcomes

Study timepoints

- Baseline
- Overall timepoint

Cognitive Behavioural Therapy versus MS nurse: Social participation

Social participation as measured by IPA: all sub-categories - Polarity - Lower values are better

Outcome	Cognitive behavioural therapy versus MS nurse, overall timepoint, N = 44 vs 47
IPA: autonomy indoors Mean difference - adjusted for baseline value and centre (95% CI)	-0.05 (-0.21 to 0.11)
IPA: family role Mean difference - adjusted for baseline value and centre (95% CI)	-0.05 (-0.25 to 0.15)
IPA: autonomy outdoors Mean difference - adjusted for baseline value and centre (95% CI)	-0.14 (-0.32 to 0.05)
IPA: social relations Mean difference - adjusted for baseline value and centre (95% CI)	0.05 (-0.10 to 0.21)
IPA: work/education Mean difference - adjusted for baseline value and centre (95% CI)	-0.15 (-0.35 to 0.06)

CI: confidence interval; IPA: Impact on Participation and Autonomy; N/n: number of participants

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns (Randomization was performed using concealed computerized block-wise randomization, stratified by treatment centre. The block size of 8 was disclosed after finishing all follow-up measurements. An independent investigator, not the assessors, carried out the randomization and informed the patient and therapist about the therapy allocation. Differences in baseline characteristics, however no

Section	Question	Answer
		<i>p-value reported if statistically significant. Mean difference between CBT and MS nurse adjusted for baseline imbalances and centre.)</i>
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. ITT analyses were used.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(All randomised participants were analysed.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: Impact on Participation and Autonomy. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(TREFAMS-ACE programme protocol available. Results of all analyses published in study or supplementary appendix as per protocol.)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

CBT: cognitive behavioural therapy; ITT: intention to treat analysis; MS: multiple sclerosis; TREFAMS-ACE: Treating Fatigue in MS with Aerobic Training, Cognitive Behavioural Therapy and Energy Conservation Management

Veenhuizen 2019

Bibliographic Reference Veenhuizen, Yvonne; Cup, Edith H C; Jonker, Marianne A; Voet, Nicoline B M; van Keulen, Bianca J; Maas, Daphne M; Heeren, Anita; Groothuis, Jan T; van Engelen, Baziel G M; Geurts, Alexander C H; Self-management program improves

participation in patients with neuromuscular disease: A randomized controlled trial.; Neurology; 2019; vol. 93 (no. 18); e1720-e1731

Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	July 22, 2014 - September 1, 2015
Inclusion criteria	- Age 18 years or older - Diagnosis of neuromuscular disease (NMD) determined by a neurologist using established criteria - Subjective experience of chronic fatigue with a clear effect on daily life and social participation determined by an occupational therapist.
Exclusion criteria	- Major cardiorespiratory problems that precluded participation in aerobic exercise training - Pregnancy - Limited life expectancy (<5 years) due to known comorbid conditions - Having participated in the Energetic program or a similar intervention before.
Patient characteristics	N=53 adults with neuromuscular disease - Energetic programme: n=29 - Usual care: n=24 Age in years [Mean (SD) not reported] [Median (IQR)]: - Energetic programme: 52 (37-63)

	- Usual care: 50 (41-60) Sex (M/F): - Energetic programme: n=8/n=21 - Usual care: n=9/n=15 Time since diagnosis: Not reported Chronic neurological disorder category: Progressive neurological diseases
Intervention(s)/control	Intervention Name: Energetic programme (Aerobic exercise training [AET], exercise education, energy conservation management [ECM], and implementation and relapse prevention) Protocol intervention group: Interventions to support participation in recreation and leisure Delivery setting: Outpatient clinic and home Number/frequency of sessions: AET (3 sessions of 30 minutes per week for 16 weeks); exercise education (3 sessions of 60-minutes during the first 3 weeks); ECM (8 sessions of 90-minutes spread across the intervention period); implementation and relapse prevention (10 group sessions). Duration: 16 weeks Practitioner: Physical and occupational therapist

	Individually tailored AET, training intensity was aimed at 50%–70% of the maximum heart rate, based on a maximal cycling exercise test. Exercise education, patients were educated about general physical and aerobic exercise training principles in relation to NMD. ECM, education and discussion, extended by individual goal-setting, practicing activities, and performing homework activities with the aim to learn and apply energy conservation strategies in daily life. Implementation and relapse, empowered the patients with the implementation of AET and ECM in daily life, with a specific focus on finding a sustainable way to exercise at home. In addition, a booster session of 2 hours with the physical and occupational therapists was organized 2 months after the end of the intervention period to reinforce previously learned strategies and skills. Control Name: Usual Care Protocol description: Control (usual care) Delivery setting: Not applicable Number/ frequency of sessions: Not applicable Duration: Not applicable Practitioner(s): Not applicable Patients in the control group were not prescribed (or withheld) any specific intervention, which meant that some received physical therapy in primary care, other forms of multidisciplinary rehabilitation care, or no intervention at all.
Duration of follow-up	11-months post-intervention
Sources of funding	Not industry funded.
Sample size	N=53 - Energetic programme; n=29 - Usual Care; n=24

AET: aerobic exercise training; ECM: energy conservation training; IQR: interquartile range; N/n: number of participants; NMD: neuromuscular disease; N/n: number of participants

Outcomes

Study timepoints

- Baseline
- 3 months post-intervention
- 11 months post-intervention

Energetic programme versus usual care: Social participation

Social participation as measured by COPM Performance - Polarity - Higher values are better

Outcome	Energetic programme versus usual care, post-intervention, N = 27 vs 24	Energetic programme versus usual care, 3-months post-intervention, N = 27 vs 23	Energetic programme versus usual care, 11-months post-intervention, N = 27 vs 22
COPM Performance Mean difference between groups (95% CI)	1.7 (1.0 to 2.4)	0.8 (-0.2 to 1.8)	0.9 (0.0 to 1.7)

performance: Canadian Occupational Performance Measure; N/n: number of participants

CI: confidence interval; COPM-

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	High (No details on allocation concealment. Differences in baseline characteristics, however no p-value reported if statistically significant.)

Section	Question	Answer
		<i>Mean difference between energetic programme and usual care adjusted for baseline, sex, diagnosis, and work status.)</i>
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. ITT analyses were used.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(All participants randomised were analysed.)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Some concerns <i>(The questionnaires used were all validated and widely used tools: COPM. Standardised and validated measurement tools implemented by researchers blinded to allocation, however outcomes subjective and participants aware of allocation.)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol available. Results of all analyses published in study or supplementary appendix as per protocol.)</i>
Overall bias and Directness	Risk of bias judgement	High
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

COPM-performance: Canadian Occupational Performance Measure; ITT: intention to treat

Voet 2014

Bibliographic Reference	Voet, Nicoline; Bleijenbergh, Gijs; Hendriks, Jan; de Groot, Imelda; Padberg, George; van Engelen, Baziel; Geurts, Alexander; Both aerobic exercise and cognitive-behavioral therapy reduce chronic fatigue in FSHD: an RCT.; Neurology; 2014; vol. 83 (no. 21); 1914-22
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Study details

Country/ies where study was carried out	The Netherlands
Study type	Randomised controlled trial (RCT)
Study dates	January 2009 - February 2012
Inclusion criteria	- Age 18 years and older - Severe fatigue (CIS-fatigue >35) - Able to walk independently (ankle-foot orthoses and canes are accepted) - Able to exercise on a bicycle ergometer - Able to complete either type of intervention
Exclusion criteria	- Cognitive impairment - Insufficient mastery of the Dutch language - Neurologic or orthopaedic comorbidity interfering with the interventions or possibly influencing outcomes - Pregnancy - Use of psychotropic drugs (except simple sleeping medication) - Severe cardiopulmonary disease (chest pain, arrhythmia, pacemaker, cardiac surgery, severe exertional dyspnea, emphysema) - Epileptic seizures

	- Poorly regulated diabetes mellitus or hypertension - Clinical depression, as diagnosed with the BDI-PC1
Patient characteristics	N= 57 adults with facioscapulohumeral muscular dystrophy - Aerobic training: n=20 - Cognitive Behavioural Therapy (CBT): n=13 - Usual care: n=24 Age in years [Mean (SD) not reported], [Median (range)]: - Aerobic exercise training: 59 (21-68) - Cognitive-Behavioural Therapy: 49 (24-69) - Usual care: 52 (20-79) Sex (M/F): - Aerobic exercise training: n=12/n=8 - Cognitive-Behavioural Therapy: n=8/n=5 - Usual care: n=17/n=7

	Time since diagnosis in years [Mean (SD) not reported], [Median (range)]: - Aerobic exercise training: 13 (1.0–42.0) - Cognitive-Behavioural Therapy: 7.0 (0.0–40.0) - Usual care: 16.7 (1.0–49.0) Chronic neurological disorder category: Progressive neurological diseases
Intervention(s)/control	Intervention 1 Name: Aerobic exercise training Protocol intervention group: Interventions to support participation in recreation and leisure Delivery setting: Home Number/frequency of sessions: 30 minutes cycling with additional warming-up and cooling-down periods of 5 and 3 minutes, respectively x 3 times a week Duration: Minimum of 40 sessions Practitioner: Physical therapist 3 weekly sessions of aerobic cycling exercises on a Monark (Varberg, Sweden) 827E ergometer; 2 sessions were performed in the patient's home, and the third was supervised by a physical therapist Intervention 2 Name: Cognitive behavioural therapy

	Protocol intervention group: Interventions to support participation in meaningful activity or occupation Delivery setting: Outpatient clinic Number/frequency of sessions: Each session was 50 minutes. The total number of sessions for each participant was based on the number of modules to be addressed, which were identified by the therapist by performing an interview and specific tests. Duration: Acceptable compliance with the CBT program was defined as completion of a minimum of 3 sessions. Practitioner: Cognitive behaviour therapist CBT comprised 6 possible modules based on the known fatigue-perpetuating factors and previous research. These modules were directed at insufficient coping with the disease; dysfunctional cognitions regarding fatigue, activity, pain, or other symptoms; fatigue catastrophizing; dysregulation of sleep or activity; poor social support; and negative social interactions. Control Name: Usual Care Protocol description: Control (usual care) Delivery setting: Not applicable Number/ frequency of sessions: Not applicable Duration: Not applicable Practitioner(s): Not applicable No specific treatment for fatigue but occasional physical therapy was allowed.
Duration of follow-up	16 and 28 weeks post-intervention
Sources of funding	Not industry funded.

Sample size	N=57
	- Aerobic exercise training: n=20
	- Cognitive behavioural therapy: n=13
	- Usual care: n=24

CBT: cognitive behavioural therapy; CIS: checklist individual strength; N/n: number of participants

Outcomes

Study timepoints

- Baseline
- 16 weeks
- 24 weeks

Aerobic exercise training and cognitive-behavioural therapy versus usual care: Social participation

Social participation as measured by SIP68-sb - Polarity - Lower values are better

Outcome	AET versus UC, 16-weeks, N = 19 vs 24	AET versus UC, 28 weeks, N = 19 vs 24	CBT versus UC, 16-weeks, N= 13 vs 24	CBT versus UC, 28-weeks, N = 13 vs 24
SIP68-sb	-3 (-36 to 31)	-13 (-50 to 25)	-61 (-94 to -29)	-92 (-127 to -35)
Difference between group effect				
Median (IQR)				

AET: Aerobic exercise training; CBT: Cognitive Behavioural Therapy; CI: confidence interval; IQR: interquartile range; N/n: number of participants; SIP68-sb: Sickness Impact Profile 68: social behaviour subscale; UC: usual care

Critical appraisal - Cochrane RoB 2

Section	Question	Answer
Domain 1: Bias arising from the randomisation process	Risk of bias judgement for the randomisation process	Some concerns <i>(A computer-generated randomization block list. The block sizes varied randomly to prevent predictability of the allocation process. No information on allocation concealment. Baseline characteristics balanced at baseline.)</i>
Domain 2a: Risk of bias due to deviations from the intended interventions (effect of assignment to intervention)	Risk of bias for deviations from the intended interventions (effect of assignment to intervention)	Low <i>(Although participants and personnel were aware of interventions allocated, there were no deviations from intended interventions. Participants analysed in groups randomised to.)</i>
Domain 3. Bias due to missing outcome data	Risk-of-bias judgement for missing outcome data	Low <i>(All participants randomised were analysed)</i>
Domain 4. Bias in measurement of the outcome	Risk-of-bias judgement for measurement of the outcome	Low <i>(The questionnaires used were all validated and widely used tools: SIP68-sb. Research assistants performing measurements blinded)</i>
Domain 5. Bias in selection of the reported result	Risk-of-bias judgement for selection of the reported result	Low <i>(Published protocol)</i>
Overall bias and Directness	Risk of bias judgement	Some concerns
Overall bias and Directness	Overall Directness	Directly applicable
Overall bias and Directness	Risk of bias variation across outcomes	Not applicable

SIP68-sb: Sickness Impact Profile 68: social behaviour subscale

Appendix E Forest plots

Forest plots for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

No meta-analysis was conducted for this review question and so there are no forest plots.

Appendix F GRADE tables

GRADE tables for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Interventions to support participation in recreation and leisure

Table 6: Evidence profile for comparison between behavioural intervention for physical activity and control in adults with acquired spinal cord injury

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Behavioural intervention	Control	Relative (95% CI)	Absolute		
Social participation as measured by IMPACT-S at 6 months (Better indicated by higher values)												
1 (Nooijen 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	23	22	-	MD 4.47 higher (0.07 to 8.87 higher)	LOW	CRITICAL
Social participation as measured by IMPACT-S at 12 months (Better indicated by higher values)												
1 (Nooijen 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	23	22	-	MD 9.91 higher (3.34 to 16.48 higher)	LOW	CRITICAL

CI: confidence interval; IMPACT-S: International Classification of Functioning, Disability and Health measure of participation and activities; MD: mean difference

1 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane RoB2

2 95% CI crosses 1 MID (0.5x control group SD for: IMPACT-S = +/-8.5)

Table 8: Evidence profile for comparison between cognitive behavioural therapy and control in adults with progressive neurological diseases

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cognitive behavioural therapy	Control	Relative (95% CI)	Absolute		
Participation as measured by IPA: autonomy indoors (overall timepoint) (Better indicated by lower values)												
1 (van den Akker 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	44	47	-	MD 0.05 lower (0.21 lower to 0.11 higher)	MODERATE	CRITICAL

Social participation as measured by IPA: family role (overall timepoint) (Better indicated by lower values)												
1 (van den Akker 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	44	47	-	MD 0.05 lower (0.25 lower to 0.15 higher)	MODERATE	CRITICAL
Social participation as measured by IPA: autonomy outdoors (overall timepoint) (Better indicated by lower values)												
1 (van den Akker 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	44	47	-	MD 0.14 lower (0.32 lower to 0.05 higher)	LOW	CRITICAL
Social participation as measured by IPA: social relations (overall timepoint) (Better indicated by lower values)												
1 (van den Akker 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	44	47	-	MD 0.05 higher (0.1 lower to 0.21 higher)	MODERATE	CRITICAL
Social participation as measured by IPA: work/education (overall timepoint) (Better indicated by lower values)												
1 (van den Akker 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	44	47	-	MD 0.15 lower (0.35 lower to 0.06 higher)	MODERATE	CRITICAL
Social participation as measured by SIP68-sb at 16 weeks follow-up (Better indicated by lower values)												
1 (Voet 2014)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	13	24	-	Median difference 61 lower (IQR 94 to 29 lower) ⁴	VERY LOW	CRITICAL
Social participation as measured by SIP68-sb at 28 weeks follow-up (Better indicated by lower values)												
1 (Voet 2014)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ³	none	13	24	-	Median difference 92 lower (IQR 127 to 35 lower) ⁴	VERY LOW	CRITICAL

CI: confidence interval; IPA: impact on participation and autonomy; IQR: interquartile range; MD: mean difference; MS: multiple sclerosis; SIP68-sb: sickness impact profile 68 social behaviour

1 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 95% CI crosses 1 MID (0.5x control group SD for: IPA: autonomy outdoors = +/- 0.35)

3 Very serious imprecision due to sample size <200

4 Differences between groups judged to be statistically significant according to author analysis, favouring cognitive behavioural therapy. Clinical significance could not be determined.

Table 9: Evidence profile for comparison between aerobic training and control in adults with progressive neurological diseases

Quality assessment	No of patients	Effect	Quality	Importance
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No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aerobic training	Control	Relative (95% CI)	Absolute		
Social participation as measured by IPA: autonomy indoor at 8 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	36	-	MD 0.03 lower (0.2 lower to 0.14 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy indoor at 16 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	36	39	-	MD 0.11 lower (0.28 lower to 0.06 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy indoor at 26 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	34	-	MD 0.08 higher (0.09 lower to 0.26 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy indoor at 52 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	33	30	-	MD 0.01 lower (0.03 lower to 0.01 higher)	LOW	CRITICAL
Social participation as measured by IPA: family role at 8 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	36	-	MD 0.03 lower (0.27 lower to 0.21 higher)	LOW	CRITICAL
Social participation as measured by IPA: family role at 16 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	36	39	-	MD 0.08 lower (0.32 lower to 0.16 higher)	LOW	CRITICAL
Social participation as measured by IPA: family role at 26 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	37	34	-	MD 0.11 higher (0.14 lower to 0.35 higher)	VERY LOW	CRITICAL
Social participation as measured by IPA: family role at 52 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	33	30	-	MD 0.01 lower (0.25 lower to 0.24 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy outdoors at 8 weeks (Better indicated by lower values)												

1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	36	-	MD 0.08 lower (0.32 lower to 0.17 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy outdoors at 16 weeks (Better indicated by lower values)												
1 (Heine 2017)	observational studies	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	36	39	-	MD 0.1 lower (0.34 lower to 0.15 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy outdoors at 26 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	34	-	MD 0.06 higher (0.19 lower to 0.31 higher)	LOW	CRITICAL
Social participation as measured by IPA: autonomy outdoors at 52 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	33	30	-	MD 0.1 higher (0.16 lower to 0.35 higher)	LOW	CRITICAL
Social participation as measured by IPA: social relations at 8 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	36	-	MD 0.03 higher (0.15 lower to 0.21 higher)	LOW	CRITICAL
Social participation as measured by IPA: social relations at 16 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	36	39	-	MD 0.14 lower (0.32 lower to 0.04 higher)	VERY LOW	CRITICAL
Social participation as measured by IPA: social relations at 26 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	34	-	MD 0.04 higher (0.15 lower to 0.23 higher)	LOW	CRITICAL
Social participation as measured by IPA: social relations at 52 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	33	30	-	MD 0.07 higher (0.12 lower to 0.26 higher)	VERY LOW	CRITICAL
Social participation as measured by IPA: work/education at 8 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	37	36	-	MD 0.01 higher (0.32 lower to 0.33 higher)	LOW	CRITICAL
Social participation as measured by IPA: work/education at 16 weeks (Better indicated by lower values)												

1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	36	39	-	MD 0.23 higher (0.1 lower to 0.55 higher)	VERY LOW	CRITICAL
Social participation as measured by IPA: work/education at 26 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	37	34	-	MD 0.13 higher (0.2 lower to 0.47 higher)	VERY LOW	CRITICAL
Social participation as measured by IPA: work/education at 52 weeks (Better indicated by lower values)												
1 (Heine 2017)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	33	30	-	MD 0.17 higher (0.17 lower to 0.51 higher)	VERY LOW	CRITICAL
Social participation as measured by SIP68-sb at 16 weeks (Better indicated by lower values)												
1 (Voet 2014)	randomised trials	serious ³	no serious inconsistency	no serious indirectness	very serious ⁴	none	19	24	-	Median difference 3 lower (IQR 36 lower to 31 higher) ⁵	VERY LOW	CRITICAL
Social participation as measured by SIP68-sb at 28 weeks (Better indicated by lower values)												
1 (Voet 2014)	randomised trials	serious ³	no serious inconsistency	no serious indirectness	very serious ⁴	none	19	24	-	Median difference 13 lower (IQR 50 lower to 25 higher) ⁵	VERY LOW	CRITICAL

CI: confidence interval; IPA: impact on participation and autonomy; IQR: interquartile range; MD: mean difference; SIP68-sb: sickness impact profile 68 social behaviour

1 Very serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 95% CI crosses 1 MID (0.5x control group SD for: IPA: autonomy indoor = +/- 0.3; IPA: family role = +/- 0.35; IPA: social relations = +/- 0.25; IPA: work/education = +/- 0.4)

3 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

4 Very serious imprecision due to sample size <200

5 Differences between groups judged to be non-statistically significant according to author analysis

Table 10: Evidence profile for comparison between energy conservation management and control in adults with progressive neurological diseases

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirecttness	Imprecision	Other considerations	Energy conservation management	Control	Relative (95% CI)	Absolute		
Social participation as measured by IPA: autonomy indoors (overall timepoint) (Better indicated by lower values)												
1 (Blikman 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirecttness	no serious imprecision	none	42	44	-	MD 0.03 higher (0.15 lower to 0.21 higher)	MODERATE	CRITICAL

Social participation as measured by IPA: family role (overall timepoint) (Better indicated by lower values)												
1 (Blikman 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	44	-	MD 0.02 higher (0.2 lower to 0.25 higher)	MODERATE	CRITICAL
Social participation as measured by IPA: autonomy outdoors (overall timepoint) (Better indicated by lower values)												
1 (Blikman 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	44	-	MD 0.02 higher (0.19 lower to 0.23 higher)	MODERATE	CRITICAL
Social participation IPA: social relations (overall timepoint) (Better indicated by lower values)												
1 (Blikman 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	42	44	-	MD 0.2 higher (0.03 to 0.36 higher)	LOW	CRITICAL
Social participation IPA: work/education (overall timepoint) (Better indicated by lower values)												
1 (Blikman 2017)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	42	44	-	MD 0 higher (0.22 lower to 0.23 higher)	MODERATE	CRITICAL

CI: confidence interval; IPA: impact on participation and autonomy; MD: mean difference
 1 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2
 2 95% CI crosses 1 MID (0.5x control group SD for: IPA: social relations = +/- 0.22)

Table 11: Evidence profile for comparison between energetic self-management programme and control in adults with progressive neurological diseases

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Energetic programme	Control	Relative (95% CI)	Absolute		
Social participation as measured by COPM-performance at post-intervention (Better indicated by higher values)												
1 (Veenhuizen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	27	24	-	MD 1.7 higher (1 to 2.4 higher)	LOW	CRITICAL
Social participation as measured by COPM-performance at 3 months (Better indicated by higher values)												
1 (Veenhuizen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	27	23	-	MD 0.8 higher (0.2 lower to 1.8 higher)	VERY LOW	CRITICAL
Social participation as measured by COPM-performance at 11 months (Better indicated by higher values)												

1 (Veenhuizen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	27	22	-	MD 0.9 higher (0 to 1.7 higher)	VERY LOW	CRITICAL
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CI: confidence interval; COPM-performance: Canadian occupational performance measure; MD: mean difference

1 Very serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 95% CI crosses 1 MID (0.5x control group SD for: COPM-performance = +/- 0.6)

Interventions to support overall social participation

Table 12: Evidence profile for comparison between home-based, goal-orientated, and individualised rehabilitation and control in adults with acquired brain injury

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Home-based, goal-orientated, and individualised rehabilitation	Control	Relative (95% CI)	Absolute		
Social participation as measured by PART-O at 4 months (Better indicated by higher values)												
1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	58	55	-	MD 0.05 higher (0.021 lower to 0.31 higher)	MODERATE	CRITICAL
Social participation as measured by PART-O at 12 months (Better indicated by higher values)												
1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	57	55	-	MD 0.12 higher (0.14 lower to 0.38 higher)	MODERATE	CRITICAL
Physical and mental health related quality of life as measured by EQ-5D-5L at 4 months (Better indicated by higher values)												
1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	58	55	-	MD 0.03 higher (0.01 lower to 0.07 higher)	MODERATE	IMPORTANT
Physical and mental health related quality of life as measured by EQ-5D-5L at 12 months (Better indicated by higher values)												
1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	57	55	-	MD 0.05 higher (0.00 to 0.10 higher)	LOW	IMPORTANT
Physical and mental health related quality of life as measured by QOLIBRI at 4-months (Better indicated by higher values)												

1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	58	55	-	MD 3.78 higher (2.16 lower to 9.72 higher)	MODERATE	IMPORTANT
Physical and mental health related quality of life as measured by QOLIBRI at 12 months (Better indicated by higher values)												
1 (Borgen 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	no serious imprecision	none	57	55	-	MD 2.82 higher (3.11 lower to 8.75 higher)	MODERATE	IMPORTANT

CI: confidence interval; EQ-5D-5L: EuroQol 5-dimension 5-level; MD: mean difference; PART-O: participation and recombined tools-objective; QOLIBRI: quality of life after brain injury

1 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 95% CI crosses 1 MID (0.5x control group SD for: EQ-5D-5L = +/- 0.075)

Table 13: Evidence profile for comparison between Ontario brain injury association peer support and control in adults with acquired brain injury

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Ontario Brain Injury Association Peer Support	Control	Relative (95% CI)	Absolute		
Community integration as measured by CIQ overall score (Better indicated by higher values)												
1 (Levy 2021)	randomised trials	serious ¹	no serious inconsistency	no serious indirectness	very serious ²	none	6	7	-	g=0.617 (0.639 lower to 1.872 higher)	VERY LOW	CRITICAL

CI: confidence interval; CIQ: community integration questionnaire; g=Hedge's g effect size

1 Serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 Very serious imprecision due to sample size <200

Table 14: Evidence profile for comparison between 'can do treatment' and control in adults with progressive neurological diseases

Quality assessment							No of patients		Effect		Quality	Importance
No of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	'Can do treatment'	Control	Relative (95% CI)	Absolute		
Social participation as measured by IPA limitations at 1 month (Better indicated by lower values)												

1 (Jongen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	68	67	-	MD 0.2 lower (0.32 to 0.08 lower)	VERY LOW	CRITICAL
Social participation as measured by IPA limitations at 3 months (Better indicated by lower values)												
1 (Jongen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	64	75	-	MD 0.2 lower (0.32 to 0.08 lower)	VERY LOW	CRITICAL
Social participation as measured by IPA limitations at 6 months (Better indicated by lower values)												
1 (Jongen 2019)	randomised trials	very serious ¹	no serious inconsistency	no serious indirectness	serious ²	none	54	63	-	MD 0.2 lower (0.33 to 0.07 lower)	VERY LOW	CRITICAL

CI: confidence interval; IPA: impact on participation and autonomy; MD: mean difference; MS-QoL-54: multiple sclerosis quality of life-54 instrument

1 Very serious risk of bias in the evidence contributing to the outcomes as per Cochrane ROB2

2 95% CI crosses 1 MID (0.5x control group SD for: IPA limitations = +/- 0.25)

Appendix G Economic evidence study selection

Study selection for: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Please see Supplement 2 for details on search that was undertaken and study selection.

Appendix H Economic evidence tables

Economic evidence tables for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Table 7: Economic evidence table for a 'Can Do Treatment' for people with relapsing remitting multiple sclerosis:

Study country and type	Intervention and comparator	Study population, design and data sources	Costs and outcomes (descriptions and values)	Results	Comments
van Mastrigt 2019 The Netherlands Cost-effectiveness and cost-utility analysis Source of funding: The National Multiple Sclerosis Foundation, Rotterdam, the Netherlands	Can Do Treatment (CDT) include: - Delivered by a multidisciplinary team. - Involves large/small group sessions, consultations, theatre evenings, and an optional morning walk in the woods. - Large group sessions led by the psychiatrist and psychiatric nurse. - Teaches participants how to support each other, offer feedback, and set individual goals. - Offers one-on-one goal setting and training based on specific objectives, such as exploring physical abilities, emotional potential, and daily living skills.	Adults with the diagnosis of relapsing remitting MS, with time to diagnosis of at least 1 year Economic evaluation alongside an RCT (Jongen 2019) Source of baseline data: RCT (N=158) Source of effectiveness data: RCT (N=158) Source of resource use data: RCT study participants (N=158) Source of unit cost data: National sources (Dutch Manual for costing, Dutch Pharmacoeconomic Therapeutic compass, the National MS	Costs: - Healthcare (inpatient): rehabilitation centre, hospital, nursing home - Healthcare (outpatient): Hospital Day treatment, specialists, activity therapy, occupational therapy, exercise therapy, physiotherapy, social work, speech therapist, psychologist/psychotherapist, psychiatrist, psychiatric nurse, other healthcare professionals, general practitioner, family care at home, personal care at home, paid help. - Medication. - Intervention cost.	ICERs: €76.49 per one-point improvement on the MSSES scale (range 0-100) CDT dominated using QALYs as an outcome measure (lower QALYs and higher costs) Probability of being cost-effective: NR Subgroup analysis: NR Sensitivity analysis: - QALYs estimated using SF-6D and associated UK Tariff CDT resulted in 0.01 QALY gain (p = ns) at 6	Perspective: Healthcare payer Currency: Euros Cost year: 2014 Time horizon: 6 months Discounting: NA Applicability: Partially Limitations: Potentially serious Other comments: - The primary analysis adopted a societal perspective. However, cost categories were reported separately, and irrelevant cost categories were excluded. - Used non-parametric bootstrapping to estimate the uncertainty

Study country and type	Intervention and comparator	Study population, design and data sources	Costs and outcomes (descriptions and values)	Results	Comments
	- Includes relaxation sessions and a theatre evening where participants experiment with changing roles to demonstrate their potential. Treatment as usual (TAU) comprises: - Treatment and care provided by a neurologist or other healthcare professionals, given the absence of a standard treatment for enhancing self-efficacy control in individuals with Multiple Sclerosis (MS). - Participants had the choice to undergo CDT after participating in the study. - Adherence to the Dutch National Guideline for diagnosing and treating MS.	Foundation, and Actual purchase prices for aids and tools	- Wheelchair, aids & tools e.g., rollator, scooter, canes. Mean cost per participant at 6 months: CDT: €10,440 TAU: €7,303 Difference: €3,116 (95% CI: €1,353 to €4,929), $p < 0.05$ Primary measure of outcome: improvement on the Multiple Sclerosis Self-Efficacy Scale (MSSES), QALYs (HRQoL measurement using EuroQol [EQ-5D-5L], valuation using the Dutch Tariff) Mean MSSES scores at 6 months: CDT: 578 (SD: 166) TAU: 540 (SD: 135) Difference: 40.74 (bootstrapped), $p = ns$	months. The associated ICER of CDT (versus TAU) was €311,600/QALY gained.	surrounding the costs and outcomes. - The study reported sub-group, sensitivity analysis, and probabilities of CDT being cost-effective but all analyses were from a societal perspective.

Study country and type	Intervention and comparator	Study population, design and data sources	Costs and outcomes (descriptions and values)	Results	Comments
			Mean QALYs per participant at 6 months: CDT: 0.332 TAU: 0.350 Difference: - 0.018, p = ns		

Abbreviations: CDT: Can Do Treatment; CI: Confidence Interval; EQ-5D-5L: EuroQol 5-Dimension 5-Level questionnaire; HRQoL: Health-Related Quality of Life; ICERs: Incremental Cost-Effectiveness Ratios; MS: Multiple Sclerosis; MSSES: Multiple Sclerosis Self-Efficacy Scale; NHS: National Health Service; NR: Not Reported; PSS: Personal Social Services; QALYs: Quality-Adjusted Life Years; RCT: Randomized Controlled Trial; SF-6D: Short Form 6-Dimension; TAU: Treatment as usual; UK: United Kingdom; NA: Not Applicable

Appendix I Economic model

Economic model for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

The committee prioritised this question for economic modelling but there was insufficient effectiveness data to inform a useful model.

Appendix J Excluded studies

Excluded studies for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

Excluded effectiveness studies

Table 15: Excluded studies and reasons for their exclusion

Study	Reason for exclusion
(2017) Mii-vitaliSe: a pilot randomised controlled trial of a home gaming system (Nintendo Wii) to increase activity levels, vitality and well-being in people with multiple sclerosis . BMJ open 7: e016966	- Intervention Intervention is designed to increase activity levels in people's own homes, and not to support people's social participation (for example leisure, family life, sex and relationships).
Abasi, A, Raji, P, Friedman, JH et al. (2020) Effects of Vestibular Rehabilitation on Fatigue and Activities of Daily Living in People with Parkinson's Disease: a Pilot Randomized Controlled Trial Study . Parkinson's disease 2020	- Country Study conducted in Iran.
Advocat, Jenny, Enticott, Joanne, Vandenberg, Brooke et al. (2016) The effects of a mindfulness-based lifestyle program for adults with Parkinson's disease: a mixed methods, wait list controlled randomised control study . BMC neurology 16: 166	- Study design (adults) Qualitative study.
Afferi, Luca, Pannek, Jurgen, Louis Burnett, Arthur et al. (2020) Performance and safety of treatment options for erectile dysfunction in patients with spinal cord injury: A review of the literature . Andrology 8(6): 1660-1673	- Intervention Systematic review with 32/47 studies investigating pharmacological interventions for sexual dysfunction, and not to support people's social participation (for example leisure, family life, sex and relationships). The 15/47 potentially relevant studies were checked against relevant protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Afshar, Bahare, Amini, Leila, Hasani, Maryam et al. (2022) The most effective sexual function and dysfunction interventions in individuals with multiple sclerosis: A systematic review and meta-analysis . International journal of reproductive biomedicine 20(4): 241-254	- Country Systematic review in adults with all included RCTs conducted in Iran.
Agyemang, A; Marwitz, J; Kreutzer, J (2017) Preliminary efficacy of a couples' intervention to promote relationship quality following brain injury . Archives of physical medicine and rehabilitation 98(10): e23	- Publication type Conference abstract.
Ahani, L, Chorami, M, Sharifi, T et al. (2021) The Effect of Mindfulness Psych-Educational Group Intervention on Improving Sexual Function of Women with Multiple Sclerosis . Nursing & midwifery care journal 11(4): 35-45	- Country Study conducted in Iran.
Ahn, Si-Nae (2020) Participation based intervention with acquired brain injury: Systematic review and meta-	- Publication date

Study	Reason for exclusion
analysis . Restorative neurology and neuroscience 38(6): 419-429	Systematic review with 3/5 studies published 2013 onwards, and 2/5 published pre-2013. Studies published 2013 onward were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Aldana-Benitez, Daniel, Caicedo-Pareja, Maria Jose, Sanchez, Diana Patricia et al. (2023) Dance as a neurorehabilitation strategy: A systematic review . Journal of bodywork and movement therapies 35: 348-363	- Publication type Narrative review.
Amoako, Annika Nina and Hare, Dougal Julian (2020) Non-medical interventions for individuals with Rett syndrome: A systematic review . Journal of applied research in intellectual disabilities : JARID 33(5): 808-827	- Intervention Systematic review with 13/13 studies investigating non-medical interventions to improve communication, and not to support people's social participation (for example leisure, family life, sex and relationships).
Arbour-Nicitopoulos, Kelly P, Sweet, Shane N, Lamontagne, Marie-Eve et al. (2017) A randomized controlled trial to test the efficacy of the SCI Get Fit Toolkit on leisure-time physical activity behaviour and social-cognitive processes in adults with spinal cord injury . Spinal cord series and cases 3: 17044	- Intervention Intervention is the provision of information to improve motivation for physical activity, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Arshi, Maliheh, Sheybani, Fahime, Eghlima, Mostafa et al. (2020) Group social work intervention enhances the sexual satisfaction of women with Multiple Sclerosis: a randomized controlled trial study . Social work in health care 59(5): 322-333	- Country Study conducted in Iran.
Barrera, Maru, Atenafu, Eshetu G, Sung, Lillian et al. (2018) A randomized control intervention trial to improve social skills and quality of life in pediatric brain tumor survivors . Psycho-oncology 27(1): 91-98	- Publication type Conference abstract.
Beckerman, Heleen, Blikman, Lyan Jm, Heine, Martin et al. (2013) The effectiveness of aerobic training, cognitive behavioural therapy, and energy conservation management in treating MS-related fatigue: the design of the TREFAMS-ACE programme . Trials 14: 250	- Publication type Protocol.
Behn, N, Hilari, K, Marshall, J et al. (2018) SUpporting well-being through PEer-Befriending (SUPERB) trial: an exploration of fidelity in peer-befriending for people with aphasia . Aphasiology 32(suppl1): 21-23	- Population Post-stroke aphasia in adults. Not relevant according to protocol population criteria.
Behn, Nicholas, Francis, Jill, Togher, Leanne et al. (2021) Description and effectiveness of communication partner training in TBI: A systematic review . The Journal of Head Trauma Rehabilitation 36(1): 56-71	- Publication date Systematic review with 6/10 studies published 2013 onwards, and 4/10 published pre-2013. Studies published 2013 onwards were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Bernard, Renaldo M, Seijas, Vanessa, Davis, Micheal et al. (2023) Mobile Health Self-management Support for	- Intervention Systematic review with 24/24 studies investigating bowel, bladder, and pain

Study	Reason for exclusion
Spinal Cord Injury: Systematic Literature Review . JMIR mHealth and uHealth 11: e42679	management interventions, and not to support people's social participation (for example leisure, family life, sex and relationships).
Blake, John, Yaghmaian, Rana, Brooks, Jessica et al. (2018) Attachment, hope, and participation: Testing an expanded model of Snyder's hope theory for prediction of participation for individuals with spinal cord injury . Rehabilitation psychology 63(2): 230-239	- Study design (adults) Non-comparative study.
Blikman, Lyan J, Huisstede, Bionka M, Kooijmans, Hedwig et al. (2013) Effectiveness of energy conservation treatment in reducing fatigue in multiple sclerosis: a systematic review and meta-analysis . Archives of physical medicine and rehabilitation 94(7): 1360-76	- Publication date Systematic review with 6/6 studies published 2013 onwards.
Bloom, Julia; Dorsett, Pat; McLennan, Vanette (2017) Integrated services and early intervention in the vocational rehabilitation of people with spinal cord injuries . Spinal cord series and cases 3: 16042	- Study design (adults) Narrative review.
Bochkezanian, V, Raymond, J, de Oliveira, C Q et al. (2015) Can combined aerobic and muscle strength training improve aerobic fitness, muscle strength, function and quality of life in people with spinal cord injury? A systematic review . Spinal cord 53(6): 418-31	- Study design (adults) Only qualitative studies included in systematic review.
Bouca-Machado, Raquel, Rosario, Ana, Caldeira, Daniel et al. (2020) Physical Activity, Exercise, and Physiotherapy in Parkinson's Disease: Defining the Concepts . Movement disorders clinical practice 7(1): 7-15	- Study design (adults) Narrative review.
Brasure, M., Lamberty, G.J., Sayer, N.A. et al. (2013) Participation after multidisciplinary rehabilitation for moderate to severe traumatic brain injury in adults: A systematic review . Archives of Physical Medicine and Rehabilitation 94(7): 1398-1420	- Duplicate.
Brasure, Michelle, Lamberty, Greg J, Sayer, Nina A et al. (2013) Participation after multidisciplinary rehabilitation for moderate to severe traumatic brain injury in adults: a systematic review . Archives of physical medicine and rehabilitation 94(7): 1398-420	- Study design (adults) Systematic review (adult population) with 3/12 randomised controlled trials and 9/12 non-randomised studies. Randomised controlled trials which were published 2013 or later, were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Brent, J; Neumann, D; Hammond, F (2022) Exploring Changes in Social Inferencing and Negative Attributions Following an Intervention for Individuals with Brain Injury . Archives of physical medicine and rehabilitation 103(3): e16	- Publication type Conference abstract.
Brooks, Rob, Lambert, Charlotte, Coulthard, Laura et al. (2021) Social participation to support good mental health in neurodisability . Child: Care, Health and Development 47(5): 675-684	- Population Systematic review including participants who are in protocol (18/43 studies involved people with CNS) and out of guideline scope (autistic spectrum disorders, 13/43; learning disabilities,

Study	Reason for exclusion
	3/43; attention-deficit/hyperactivity disorder, 5/43; cerebral palsy, 2/43 and Down's syndrome, 2/43). Studies including participants with CNS were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Burke, Shauna M, Tomasone, Jennifer R, Scime, Natalie V et al. (2018) Physical activity self-management interventions for adults with spinal cord injury: Part 2 - Exploring the generalizability of findings from research to practice. Psychology of Sport and Exercise 37: 286-295	- Study design Prognostic study
Busse, Monica, Quinn, Lori, Drew, Cheney et al. (2017) Physical Activity Self-Management and Coaching Compared to Social Interaction in Huntington Disease: Results From the ENGAGE-HD Randomized, Controlled Pilot Feasibility Trial. Physical therapy 97(6): 625-639	- Outcomes No relevant outcomes reported. Reports mobility, self-efficacy, physical activity, and disease-specific measures of motor and cognition, no outcomes to assess social participation (for example leisure, family life, sex and relationships).
Carroll, V. Susan (2013) Segway use in individuals with multiple sclerosis. Journal of Neuroscience Nursing 45(1): 2-4	- Publication type Narrative review.
Carter, A, Daley, A, Humphreys, L et al. (2014) Pragmatic intervention for increasing self-directed exercise behaviour and improving important health outcomes in people with multiple sclerosis: a randomised controlled trial. Multiple sclerosis (Houndmills, Basingstoke, England) 20(8): 1112-22	- Intervention Exercise Intervention for people with MS (EXIMS) on self-directed exercise behaviour and important health outcomes, including fatigue and health-related quality of life, and not to support people's social participation (for example leisure, family life, sex and relationships).
Carter, Anouska Madeleine (2018) The effects of a pragmatic exercise intervention in people with multiple sclerosis. Dissertation Abstracts International Section C: Worldwide 75(4c): no-heispecified	- Intervention Exercise Intervention on self-directed exercise behaviour and important health outcomes, including fatigue and health-related quality of life, and not to support people's social participation (for example leisure, family life, sex and relationships).
Cattaneo, Davide, Gervasoni, Elisa, Pupillo, Elisabetta et al. (2019) Educational and Exercise Intervention to Prevent Falls and Improve Participation in Subjects With Neurological Conditions: The NEUROFALL Randomized Controlled Trial. Frontiers in neurology 10: 865	- Intervention The intervention comprises of education and balance exercises with the main objective of falls prevention, and not to support people's social participation (for example leisure, family life, sex and relationships).
Chemtob, K, Rocchi, M, Arbour-Nicitopoulos, K et al. (2019) Using tele-health to enhance motivation, leisure time physical activity, and quality of life in adults with spinal cord injury: A self-determination theory-based pilot randomized control trial. Psychology of Sport and Exercise 43: 243-252	- Intervention Telehealth to enhance leisure time physical activity, motivation and satisfaction, and not to support people's social participation (for example leisure, family life, sex and relationships).

Study	Reason for exclusion
Cheung, Corjena, Bhimani, Rozina, Wyman, Jean F et al. (2018) Effects of yoga on oxidative stress, motor function, and non-motor symptoms in Parkinson's disease: a pilot randomized controlled trial. Pilot and feasibility studies 4: 162	- Country Study conducted in the US.
Chong, W., Ibrahim, E., Aballa, T.C. et al. (2017) Comparison of three methods of penile vibratory stimulation for semen retrieval in men with spinal cord injury. Spinal Cord 55(10): 921-925	- Country Study conducted in the US.
Cicerone, K.D. (2013) Participation after multidisciplinary rehabilitation for moderate to severe traumatic brain injury in adults. Archives of Physical Medicine and Rehabilitation 94(7): 1421-1423	- Publication type Commentary.
Clasby, Betony, Hughes, Nathan, Catroppa, Cathy et al. (2018) Community-based interventions for adolescents following traumatic brain injury: A systematic review. NeuroRehabilitation 42(3): 345-363	- Country Systematic review with 13/17 studies conducted in the US, and 4/17 studies conducted in Europe. European studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Collett, E., Wang, T., Todd, C. et al. (2022) Enhanced education for adult patients with persistent post-concussion headaches: a randomized controlled trial. Concussion 7(3): cnc102	- Intervention Education intervention for post-concussion headaches, and not to support people's social participation (for example leisure, family life, sex and relationships).
Collett, Johnny, Franssen, Marloes, Meaney, Andy et al. (2017) Phase II randomised controlled trial of a 6-month self-managed community exercise programme for people with Parkinson's disease. Journal of neurology, neurosurgery, and psychiatry 88(3): 204-211	- Intervention Exercise intervention for fitness, motor and non-motor symptoms, and health and wellbeing measures, and not to support people's social participation (for example leisure, family life, sex and relationships).
Coote, S, Hayes, S, Uszynski, M et al. (2016) Group aerobic and strength training combined with social cognitive theory based education, results of the step it up RCT. Archives of physical medicine and rehabilitation 97(12): e4	- Intervention Exercise intervention to enable the participants to reach the published exercise guidelines, and not to support people's social participation (for example leisure, family life, sex and relationships).
Coote, Susan, Uszynski, Marcin, Herring, Matthew P et al. (2017) Effect of exercising at minimum recommendations of the multiple sclerosis exercise guideline combined with structured education or attention control education - secondary results of the step it up randomised controlled trial. BMC neurology 17(1): 119	- Intervention Exercise intervention to enable the participants to reach the published exercise guidelines, and not to support people's social participation (for example leisure, family life, sex and relationships).
Cordeau, D and Courtois, F (2014) Sexual disorders in women with MS: assessment and management. Annals of physical and rehabilitation medicine 57(5): 337-347	- Publication type Narrative review.
Crytzer, Theresa M; Dicianno, Brad E; Fairman, Andrea D (2013) Effectiveness of an upper extremity exercise device and text message reminders to exercise in adults	- Country Study conducted in the US.

Study	Reason for exclusion
with spina bifida: a pilot study . Assistive technology : the official journal of RESNA 25(4): 181-93	
Daneshfar, F., Behboodi-Moghadam, Z., Khakbazar, Z. et al. (2017) The Influence of Ex-PLISSIT (Extended Permission, Limited Information, Specific Suggestions, Intensive Therapy) Model on Intimacy and Sexuality of Married Women with Multiple Sclerosis . Sexuality and Disability 35(4): 399-414	- Country Study conducted in Iran.
de Araujo, Amanda Vitoria Lacerda, Neiva, Jaqueline Freitas de Oliveira, Monteiro, Carlos Bandeira de Mello et al. (2019) Efficacy of Virtual Reality Rehabilitation after Spinal Cord Injury: A Systematic Review . BioMed research international 2019: 7106951	- Intervention Systematic review with 3/11 studies investigating interventions to improve upper limb function, 2/11 studies to improve functional performance including balance, 2/11 studies to reduce pain, 1/11 studies to improve energy metabolism, and not designed to support people's social participation (for example leisure, family life, sex and relationships). The 3/11 potentially relevant studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
De Pandis, Maria Francesca, Torti, Margherita, Rotondo, Rossella et al. (2023) Therapeutic education for empowerment and engagement in patients with Parkinson's disease: A non-pharmacological, interventional, multicentric, randomized controlled trial . Frontiers in neurology 14: 1167685	- Intervention An education intervention designed to improve treatment adherence, symptom management and quality of life, not to support people's social participation (for example leisure, family life, sex and relationships).
DeDe, Gayle; Hoover, Elizabeth; Maas, Edwin (2019) Two to Tango or the More the Merrier? A Randomized Controlled Trial of the Effects of Group Size in Aphasia Conversation Treatment on Standardized Tests . Journal of speech, language, and hearing research : JSLHR 62(5): 1437-1451	- Country Study conducted in the US.
Del Popolo, Giulio, Cito, Gianmartin, Gemma, Luca et al. (2020) Neurogenic Sexual Dysfunction Treatment: A Systematic Review . European urology focus 6(5): 868-876	- Publication type Narrative review.
Devine, Katie A, Bukowski, William M, Sahler, Olle Jane Z et al. (2016) Social competence in childhood brain tumor survivors: Feasibility and preliminary outcomes of a peer-mediated intervention . Journal of Developmental and Behavioral Pediatrics 37(6): 475-482	- Country Study conducted in the US.
Edwards, Thomas, Michelsen, Anne Sophie, Fakolade, Afolasade O et al. (2022) Exercise training improves participation in persons with multiple sclerosis: A systematic review and meta-analysis . Journal of sport and health science 11(3): 393-402	- Outcomes Systematic review with 21/23 studies reporting on social participation as a sub-category of a quality of life outcome scale and not independently. The 2/23 potentially relevant studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.

Study	Reason for exclusion
Elbogen, Eric B, Dennis, Paul A, Van Voorhees, Elizabeth E et al. (2019) Cognitive Rehabilitation With Mobile Technology and Social Support for Veterans With TBI and PTSD: A Randomized Clinical Trial. The Journal of head trauma rehabilitation 34(1): 1-10	- Country Study conducted in the US.
Esteve-Rios, Antonio, Garcia-Sanjuan, Sofia, Oliver-Roig, Antonio et al. (2020) Effectiveness of interventions aimed at improving the sexuality of women with multiple sclerosis: a systematic review. Clinical rehabilitation 34(4): 438-449	- Country 5/8 studies included in the systematic review conducted in Israel, the US, and Brazil, and 3/8 studies conducted in Europe. European studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Exell, Roseanne; Hilari, Katerina; Behn, Nicholas (2022) Interventions that support adults with brain injuries, learning disabilities and autistic spectrum disorders in dating or romantic relationships: a systematic review. Disability and rehabilitation 44(12): 2567-2580	- Study design (adults) Systematic review (adult population) with 3/6 randomised controlled trials and 3/6 non-randomised studies. Randomised controlled trials which were published 2013 or later, were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Finch, Emma, Copley, Anna, Cornwell, Petrea et al. (2016) Systematic Review of Behavioral Interventions Targeting Social Communication Difficulties After Traumatic Brain Injury. Archives of physical medicine and rehabilitation 97(8): 1352-65	- Study design (adults) Systematic review (adult population) with 3/15 randomised controlled trials and 12/15 non-randomised studies. Randomised controlled trials which were published 2013 or later, were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Fisher, M.H., Kammes, R.R., Black, R.S. et al. (2022) A Distance-Delivered Social Skills Program for Young Adults with Williams Syndrome: Evaluating Feasibility and Preliminary Efficacy. Journal of Autism and Developmental Disorders 52(12): 5162-5176	- Country Study conducted in the US.
Foster, Erin R; Bedekar, Mayuri; Tickle-Degnen, Linda (2014) Systematic review of the effectiveness of occupational therapy-related interventions for people with Parkinson's disease. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 68(1): 39-49	- Study design (adults) Narrative review.
Foster, Erin R, Golden, Laura, Duncan, Ryan P et al. (2013) Community-based Argentine tango dance program is associated with increased activity participation among individuals with Parkinson's disease. Archives of physical medicine and rehabilitation 94(2): 240-9	- Country Study conducted in the US.
Fritz, Nora E, Rao, Ashwini K, Kegelmeyer, Deb et al. (2017) Physical Therapy and Exercise Interventions in Huntington's Disease: A Mixed Methods Systematic Review. Journal of Huntington's disease 6(3): 217-235	- Outcomes No relevant outcomes reported. Reports measures of physical and cognitive function, no focus on social participation

Study	Reason for exclusion
	(for example leisure, family life, sex and relationships).
Froehlich-Grobe, K, Lee, J, Ochoa, C et al. (2022) Effectiveness and feasibility of the workout on wheels internet intervention (WOWii) for individuals with spinal cord injury: a randomized controlled trial. Spinal cord 60(10): 862-874	- Country Study conducted in the US.
Froehlich-Grobe, Katherine, Lee, Jaehoon, Aaronson, Lauren et al. (2014) Exercise for everyone: a randomized controlled trial of project workout on wheels in promoting exercise among wheelchair users. Archives of physical medicine and rehabilitation 95(1): 20-8	- Country Study conducted in the US.
Gassaway, Julie, Jones, Michael L, Sweatman, W Mark et al. (2017) Effects of Peer Mentoring on Self-Efficacy and Hospital Readmission After Inpatient Rehabilitation of Individuals With Spinal Cord Injury: A Randomized Controlled Trial. Archives of physical medicine and rehabilitation 98(8): 1526-1534e2	- Country Study conducted in the US.
Giannopapas, Vasileios, Kitsos, Dimitrios, Tsogka, Anthi et al. (2023) Sexual dysfunction therapeutic approaches in patients with multiple sclerosis: a systematic review. Neurological sciences : official journal of the Italian Neurological Society and of the Italian Society of Clinical Neurophysiology 44(3): 873-880	- Study design (adults) Narrative review.
Gilmore, Rose, Ziviani, Jenny, McIntyre, Sarah et al. (2022) Program for the Education and Enrichment of Relational Skills for adolescents with an acquired brain injury: A randomized controlled trial. Developmental medicine and child neurology 64(6): 771-779	- Population 53% acquired brain injury and 47% cerebral palsy (excluded from scope) -no separate analysis for populations.
Giovannetti, AM, Quintas, R, Tramacere, I et al. (2020) A resilience group training program for people with multiple sclerosis: results of a pilot single-blind randomized controlled trial and nested qualitative study. PloS one 15(4): e0231380	- Intervention Resilience training to improve quality of life, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Gomara-Toldra, Natalia; Sliwinski, Martha; Dijkers, Marcel P (2014) Physical therapy after spinal cord injury: a systematic review of treatments focused on participation. The journal of spinal cord medicine 37(4): 371-9	- Publication date Systematic review with 5/5 studies published pre-2013.
Gopal, Arpita, Sydow, Rebecca, Block, Valerie et al. (2021) Effectiveness of Physical Therapy in Addressing Sexual Dysfunction in Individuals with Multiple Sclerosis: A Systematic Review and Meta-analysis. International journal of MS care 23(5): 213-222	- Intervention Systematic review with 6/8 studies reporting on sexual dysfunction, no focus on social participation (for example leisure, family life, sex and relationships). The 2/8 potentially relevant studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Gould, Kate Rachel, Feeney, Tim J, Hicks, Amelia J et al. (2022) Individualized goal attainment scaling during a trial of positive behaviour support in adults with acquired	- Study design (adults) Non-comparative study.

Study	Reason for exclusion
brain injury . Neuropsychological rehabilitation 32(9): 2392-2410	
Grenawalt, Teresa Ann, Tansey, Timothy N, Phillips, Brian N et al. (2022) Effectiveness of internet-based behavioral activation on quality of life among young adult survivors of childhood brain tumor: a randomized controlled trial . Disability and rehabilitation: 1-8	- Country Study conducted in the US.
Harrison-Felix, Cynthia, Newman, Jody K, Hawley, Lenore et al. (2018) Social Competence Treatment After Traumatic Brain Injury: A Multicenter, Randomized Controlled Trial of Interactive Group Treatment Versus Noninteractive Treatment . Archives of physical medicine and rehabilitation 99(11): 2131-2142	- Country Study conducted in the US.
Hart, Tessa and Vaccaro, Monica J (2017) Goal intention reminding in traumatic brain injury: A feasibility study using implementation intentions and text messaging . Brain injury 31(3): 297-303	- Country Study conducted in the US.
Hasanpour Dehkordi, Ali (2016) Influence of yoga and aerobics exercise on fatigue, pain and psychosocial status in patients with multiple sclerosis: a randomized trial . The Journal of sports medicine and physical fitness 56(11): 1417-1422	- Country Study conducted in Iran.
Hawkins, Brent L, Van Puymbroeck, Marieke, Walter, Alysha et al. (2018) Perceived Activities and Participation Outcomes of a Yoga Intervention for Individuals with Parkinson's Disease: A Mixed Methods Study . International journal of yoga therapy 28(1): 51-61	- Country Study conducted in the US.
Hawley, Lenore, Morey, Clare, Sevigny, Mitch et al. (2022) Enhancing Self-Advocacy After Traumatic Brain Injury: A Randomized Controlled Trial . The Journal of head trauma rehabilitation 37(2): 114-124	- Country Study conducted in the US.
Hearn, Jasmine Heath and Finlay, Katherine Anne (2018) Internet-delivered mindfulness for people with depression and chronic pain following spinal cord injury: a randomized, controlled feasibility trial . Spinal cord 56(8): 750-761	- Intervention Internet-delivered mindfulness programme on depression, anxiety and pain, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Hediger, Karin, Thommen, Stefan, Wagner, Cora et al. (2019) Effects of animal-assisted therapy on social behaviour in patients with acquired brain injury: a randomised controlled trial . Scientific reports 9(1): 5831	- Intervention Animal-assisted therapy on social behaviour, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Houlihan, Bethlyn Vergo, Brody, Miriam, Everhart-Skeels, Sarah et al. (2017) Randomized Trial of a Peer-Led, Telephone-Based Empowerment Intervention for Persons With Chronic Spinal Cord Injury Improves Health Self-Management . Archives of physical medicine and rehabilitation 98(6): 1067-1076e1	- Country Study conducted in the US.
Howell, Susan, Beeke, Suzanne, Pring, Tim et al. (2021) Measuring outcomes of a peer-led social communication skills intervention for adults with acquired brain injury: A pilot investigation . Neuropsychological rehabilitation 31(7): 1069-1090	- Intervention Peer-led social communication skills intervention, not to support people's social participation (for example leisure, family life, sex and relationships).

Study	Reason for exclusion
Hughes, Rachel; Fleming, Pete; Henshall, Lauren (2020) Peer support groups after acquired brain injury: a systematic review. Brain injury 34(7): 847-856	- Population Systematic review including participants who are in protocol (6/13 studies involved people with CND) and out of guideline scope (adult stroke, 7/13). Studies including participants with CND were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
IRONS J., Yoon and et, al (2021) Group singing improves quality of life for people with Parkinson's: an international study. Aging and Mental Health 25(4): 650-656	- Study design (adults) Non-RCT.
Jaber, Ala'a F; Hartwell, Julie; Radel, Jeff D (2019) Interventions to Address the Needs of Adults With Postconcussion Syndrome: A Systematic Review. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 73(1): 7301205020p1-7301205020p12	- Publication type Narrative review.
Jones, Kate, Simpson, Grahame Kenneth, Briggs, Lynne et al. (2016) Does spirituality facilitate adjustment and resilience among individuals and families after SCI? Disability and rehabilitation 38(10): 921-35	- Study design (adults) Scoping review.
Jones, Michael L, Evans, Nicholas, Tefertiller, Candace et al. (2014) Activity-based therapy for recovery of walking in individuals with chronic spinal cord injury: results from a randomized clinical trial. Archives of physical medicine and rehabilitation 95(12): 2239-46e2	- Country Study conducted in the US.
Kalina, J Tamar, Hinojosa, Jim, Strober, Lauren et al. (2018) Randomized Controlled Trial to Improve Self-Efficacy in People With Multiple Sclerosis: The Community Reintegration for Socially Isolated Patients (CRISP) Program. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 72(5): 7205205030p1-7205205030p8	- Country Study conducted in the US.
Kalina, Jennifer (2016) Effects of an educational socialization program designed to improve self-efficacy and subsequent effects on decreasing loneliness and depression among people with multiple sclerosis. Dissertation Abstracts International: Section B: The Sciences and Engineering 77(3be): no-specified	- Country Study conducted in the US.
Kazemi, Zahra; Mousavi, Mahsa Sadat; Etemadifar, Masoud (2021) The effect of counseling based on the PLISSIT model on sexual quality of life of married women with multiple sclerosis referring to MS center in 2019: a randomized, controlled trial. Archives of women's mental health 24(3): 437-444	- Country Study conducted in Iran.
Kehrer, Abigail L, Barkocy, Brianna, Downs, Britney et al. (2022) Interventions to promote independent participation among community-dwelling middle-aged adults with long-term physical disabilities: a systematic review. Disability and rehabilitation 44(25): 7739-7750	- Intervention Systematic review with 4/14 studies investigating interventions for fall risk reduction, 3/14 studies for functional capacity, and not designed to support people's social participation (for example leisure, family life, sex and

Study	Reason for exclusion
	relationships). The 7/14 potentially relevant studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Kersey, Jessica, Hammel, Joy, Baum, Carolyn et al. (2022) Effect of interventions on activity and participation outcomes for adults with brain injury: a scoping review. Brain injury 36(1): 21-31	- Study design (adults) Scoping review.
King, Laurie A, Wilhelm, Jennifer, Chen, Yiyi et al. (2015) Effects of Group, Individual, and Home Exercise in Persons With Parkinson Disease: A Randomized Clinical Trial. Journal of neurologic physical therapy : JNPT 39(4): 204-12	- Country Study conducted in the US.
Kirby, R Lee, Mitchell, Doug, Sabharwal, Sunil et al. (2016) Manual Wheelchair Skills Training for Community-Dwelling Veterans with Spinal Cord Injury: A Randomized Controlled Trial. PloS one 11(12): e0168330	- Country Study conducted in the US.
Kooijmans, Hedwig, Post, Marcel W M, Stam, Henk J et al. (2017) Effectiveness of a Self-Management Intervention to Promote an Active Lifestyle in Persons With Long-Term Spinal Cord Injury: The HABITS Randomized Clinical Trial. Neurorehabilitation and neural repair 31(12): 991-1004	- Intervention Self-management intervention, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Kreutzer, Jeffrey S, Marwitz, Jennifer H, Sima, Adam P et al. (2020) Evaluation of a Brief, Skill-Building, Supportive, and Educational Intervention for Couples After Brain Injury. The Journal of head trauma rehabilitation 35(3): 175-186	- Country Study conducted in the US.
Kusec, Andrea, Murphy, Fionnuala C, Peers, Polly V et al. (2020) Mood, Activity Participation, and Leisure Engagement Satisfaction (MAPLES): a randomised controlled pilot feasibility trial for low mood in acquired brain injury. Pilot and feasibility studies 6: 135	- Publication type Protocol.
Lambregts, SAM, Renaud, MI, De Kloet, AJ et al. (2017) Activities and participation of children and adolescents after mild traumatic brain injury and the effectiveness of an early intervention: presentation of the Brains Ahead! study design. Developmental medicine and child neurology 59: 70-71	- Publication type Conference abstract.
Lanyon, Lucette E; Rose, Miranda L; Worrall, Linda (2013) The efficacy of outpatient and community-based aphasia group interventions: a systematic review. International journal of speech-language pathology 15(4): 359-74	- Publication date Systematic review with 29/29 studies published pre-2013.
Latella, Desiree, Maggio, Maria Grazia, Maresca, Giuseppa et al. (2022) Effects of domotics on cognitive, social and personal functioning in patients with Parkinson's disease: A pilot study. Assistive technology : the official journal of RESNA 34(4): 423-428	- Intervention Domotics to improve cognitive and social function, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Levack, William M M, Weatherall, Mark, Hay-Smith, E Jean C et al. (2015) Goal setting and strategies to enhance goal pursuit for adults with acquired disability	- Publication date Systematic review with 39/39 studies published pre-2013.

Study	Reason for exclusion
participating in rehabilitation . The Cochrane database of systematic reviews: cd009727	
Levy, Ben B, Luong, Dorothy, Perrier, Laure et al. (2019) Peer support interventions for individuals with acquired brain injury, cerebral palsy, and spina bifida: a systematic review . BMC health services research 19(1): 288	- Population Systematic review including participants who are in protocol (2/6 studies involved people with CND) and out of guideline scope (adult stroke, 4/6). Studies including participants with CND were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Libin, A.V., Scholten, J., Schladen, M.M. et al. (2015) Executive functioning in TBI from rehabilitation to social reintegration: COMPASS goal, a randomized controlled trial (grant: 1101RX000637-01A3 by the VA ORD RR&D, 2013-2016) . Military Medical Research 2(1): 32	- Country Study conducted in the US.
Libin, Alexander V, Scholten, Joel, Schladen, Manon Maitland et al. (2015) Executive functioning in TBI from rehabilitation to social reintegration: COMPASS (goal,) a randomized controlled trial (grant: 1101RX000637-01A3 by the VA ORD RR&D, 2013-2016) . Military Medical Research 2: 32	- Country Study conducted in the US.
Lim, Jan, Greenspoon, Dayna, Hunt, Anne et al. (2020) Rehabilitation interventions in Rett syndrome: a scoping review . Developmental medicine and child neurology 62(8): 906-916	- Study design (adults) Scoping review.
Lindsay, Sally, Hartman, Laura R, Reed, Nick et al. (2015) A Systematic Review of Hospital-to-School Reintegration Interventions for Children and Youth with Acquired Brain Injury . PloS one 10(4): e0124679	- Publication date Systematic review with 1/17 studies published 2013 onwards, and 16/17 published pre-2013. Studies published 2013 onwards were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Lotzke, Desiree; Ostermann, Thomas; Bussing, Arndt (2015) Argentine tango in Parkinson disease--a systematic review and meta-analysis . BMC neurology 15: 226	- Intervention Systematic review with 13/13 studies investigating interventions to improve disease progression and physical strength and functioning, and not designed to support people's social participation (for example leisure, family life, sex and relationships).
Lozano-Quilis, Jose-Antonio, Gil-Gomez, Hermenegildo, Gil-Gomez, Jose-Antonio et al. (2014) Virtual rehabilitation for multiple sclerosis using a kinect-based system: randomized controlled trial . JMIR serious games 2(2): e12	- Intervention Kinect-based virtual rehabilitation system on the balance rehabilitation of patients with MS, not to support people's social participation (for example leisure, family life, sex and relationships).
Lutz, Christina; Kersten, Stephanie; Haas, Christian T (2017) Short-Term and Long-Term Effects of an Exercise-Based Patient Education Programme in People with Multiple Sclerosis: A Pilot Study . Multiple sclerosis international 2017: 2826532	- Intervention Intervention is designed to promote sustainable and self-regulated exercise programmes, not to support people's social participation (for example leisure, family life, sex and relationships).

Study	Reason for exclusion
M, Barrera, F, Schulte, J, Chung et al. (2013) A RANDOMIZED CONTROL TRIAL TO EVALUATE THE EFFICACY OF A GROUP SOCIAL SKILLS INTERVENTION FOR CHILDHOOD SURVIVORS OF BRAIN TUMOURS. Pediatric blood & cancer 60(s3supplement45thcongressoftheinternationalsocietyofpaediatriconcologysiop25th28thseptember2013hongkongchina): 204 [PUB-0080]	- Publication type Conference abstract.
Ma, Zechen, Dhir, Priya, Perrier, Laure et al. (2020) The Impact of Vocational Interventions on Vocational Outcomes, Quality of Life, and Community Integration in Adults with Childhood Onset Disabilities: A Systematic Review. Journal of occupational rehabilitation 30(1): 1-21	- Country 14/17 studies conducted in the US, 1/17 studies in Hong Kong, 1/17 studies conducted in Japan, and 1/17 studies conducted in Europe. European study was checked against protocol criteria and was either not relevant or had been separately located by the literature search and screened.
Magee, Wendy L, Clark, Imogen, Tamplin, Jeanette et al. (2017) Music interventions for acquired brain injury. The Cochrane database of systematic reviews 1: cd006787	- Population Systematic review including participants who are in protocol (4/29 studies had people with CND) and out of guideline scope (adult stroke, 25/29). Studies including participants with CND were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Manivannan, Susruta, Al-Amri, Mohammad, Postans, Mark et al. (2019) The Effectiveness of Virtual Reality Interventions for Improvement of Neurocognitive Performance After Traumatic Brain Injury: A Systematic Review. The Journal of head trauma rehabilitation 34(2): e52-e65	- Intervention Intervention is designed to improve neurocognitive performance, not to support people's social participation (for example leisure, family life, sex and relationships).
Martinez, O., Jometon, A., Perez, M. et al. (2014) Effectiveness of teleassistance at improving quality of life in people with neuromuscular diseases. The Spanish journal of psychology 17: e86	- Study design (adults) A quasi-experimental static group design, not a randomised controlled trial.
Massetti, Thais, da Silva, Talita Dias, Crocetta, Tania Brusque et al. (2018) The Clinical Utility of Virtual Reality in Neurorehabilitation: A Systematic Review. Journal of central nervous system disease 10: 1179573518813541	- Intervention Systematic review with 41/41 studies investigating virtual reality interventions to motor functioning, cognitive rehabilitation, motion sickness, gait and walking and balance, and not designed to support people's social participation (for example leisure, family life, sex and relationships).
McMillan, T M (2013) Outcome of rehabilitation for neurobehavioural disorders. NeuroRehabilitation 32(4): 791-801	- Study design (adults) Narrative review.
Meyer-Moock, Sandra, Rath, Susan, Strunk, Katharina et al. (2022) Strengthening the occupational and social participation of multiple sclerosis patients - design of a multicenter, parallel-group randomized controlled trial (MSnetWork-study). BMC neurology 22(1): 472	- Publication type Protocol.

Study	Reason for exclusion
Milic, Branka, Feller, Clemence, Schneider, Maude et al. (2021) Social cognition in individuals with 22q11.2 deletion syndrome and its link with psychopathology and social outcomes: a review. BMC psychiatry 21(1): 130	- Study design (adults) Non-comparative study (prognostic study).
Miller, Philippa and Soundy, Andrew (2017) The pharmacological and non-pharmacological interventions for the management of fatigue related multiple sclerosis. Journal of the neurological sciences 381: 41-54	- Intervention Systematic review with 339/339 studies investigating the management of fatigue in MS, and not interventions designed to support people's social participation (for example leisure, family life, sex and relationships).
Momsen, Anne-Mette Hedeager; Ortenblad, Lisbeth; Maribo, Thomas (2022) Effective rehabilitation interventions and participation among people with multiple sclerosis: An overview of reviews. Annals of physical and rehabilitation medicine 65(1): 101529	- Publication type Narrative review.
Morris, Meg E, Ellis, Terry D, Jazayeri, Dana et al. (2019) Boxing for Parkinson's Disease: Has Implementation Accelerated Beyond Current Evidence?. Frontiers in neurology 10: 1222	- Country Systematic review with 2/2 studies conducted in the US.
Moslanejad, Fatemeh; Afrasiabifar, Ardashir; Zoladl, Mohammad (2018) Investigating the combined effect of pelvic floor muscle exercise and mindfulness on sexual function in women with multiple sclerosis: a randomized controlled trial. Clinical rehabilitation 32(10): 1340-1347	- Country Study conducted in Iran.
Moss-Morris, Rona, Harrison, Anthony M, Safari, Reza et al. (2021) Which behavioural and exercise interventions targeting fatigue show the most promise in multiple sclerosis? A systematic review with narrative synthesis and meta-analysis. Behaviour research and therapy 137: 103464	- Intervention Systematic review with 34/34 studies investigating the management of fatigue in MS, and not designed to support people's social participation (for example leisure, family life, sex and relationships).
Motl, Robert W, Kidwell-Chandler, Ariel, Sandroff, Brian M et al. (2023) Primary results of a phase-III, randomized controlled trial of the Behavioral Intervention for increasing Physical Activity in Multiple Sclerosis project. Multiple sclerosis (Houndmills, Basingstoke, England) 29(3): 415-426	- Country Study conducted in the US.
Narad, Megan E, Minich, Nori, Taylor, H Gerry et al. (2015) Effects of a Web-Based Intervention on Family Functioning Following Pediatric Traumatic Brain Injury. Journal of developmental and behavioral pediatrics : JDBP 36(9): 700-7	- Country Study conducted in the US.
Nastasi, Julie Ann and Harris, Linda (2021) Evidence for Occupational Therapy Interventions Supporting Work and Social Participation for Adults With Multiple Sclerosis: A Systematic Review. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 75(4)	- Intervention Systematic review with 4/4 studies investigating interventions to support work, and not designed to support people's social participation (for example leisure, family life, sex and relationships). The 1/4 potentially relevant study was checked against protocol criteria and was either not relevant or had been separately located by the literature search and screened.

Study	Reason for exclusion
Navarta-Sanchez, M.V., Ambrosio, L., Portillo, M.C. et al. (2020) Evaluation of a psychoeducational intervention compared with education in people with Parkinson's disease and their informal caregivers: a quasi-experimental study. Journal of advanced nursing 76(10): 2719-2732	- Intervention Psychoeducational intervention to strengthen quality of life, psychosocial adjustment and coping in people with Parkinson's disease, not to support people's social participation (for example leisure, family life, sex and relationships).
Navidian, Ali, Rezaee, Nasrin, Baniasadi, Fatemeh et al. (2017) Effect of a Couples' Relationship Enrichment Program on the Quality of Marital Relationships from the Perspective of Spouses of Patients with Multiple Sclerosis. Issues in mental health nursing 38(9): 756-762	- Country Study conducted in Iran.
Nazari, S., Keramatkar, M., Moghdehipanah, H. et al. (2023) The Effect of Ex-PLISSIT Model on Sexual Satisfaction in Women with Multiple Sclerosis. Sexuality and Disability 41(2): 467-477	- Country Study conducted in Iran.
Nedeljkovic, Una, Raspopovic, Emilija, Dubljanin, Ilic, Nela et al. (2016) Effectiveness of rehabilitation in multiple sclerosis relapse on fatigue, self-efficacy and physical activity. Acta neurologica Belgica 116(3): 309-15	- Country Study conducted in Serbia.
Okkersen, Kees, Jimenez-Moreno, Cecilia, Wenninger, Stephan et al. (2018) Cognitive behavioural therapy with optional graded exercise therapy in patients with severe fatigue with myotonic dystrophy type 1: a multicentre, single-blind, randomised trial. The Lancet. Neurology 17(8): 671-680	- Outcomes No relevant outcomes reported. Reports DM1-Activ-c, is an ADL measure so the participation aspect seems to be participation in daily life/ tasks like tying shoe laces, walking up stairs/ up hill not social participation.
Ottomanelli, Lisa; Barnett, Scott D; Goetz, Lance L (2013) A prospective examination of the impact of a supported employment program and employment on health-related quality of life, handicap, and disability among Veterans with SCI. Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation 22(8): 2133-41	- Country Study conducted in the US.
Pang, Karl H; Muneer, Asif; Alnajjar, Hussain M (2022) A Systematic Review of Penile Prosthesis Insertion in Patients With Spinal Cord Injury. Sexual medicine reviews 10(3): 468-477	- Publication date Systematic review with 11/11 studies published pre-2013.
Passos-Monteiro, Elren, B Schuch, Felipe, T Franzoni, Leandro et al. (2020) Nordic Walking and Free Walking Improve the Quality of Life, Cognitive Function, and Depressive Symptoms in Individuals with Parkinson's Disease: A Randomized Clinical Trial. Journal of functional morphology and kinesiology 5(4)	- Country Study conducted in Brazil.
Pennington, Lindsay, Akor, Wanwuri A, Laws, Kate et al. (2018) Parent-mediated communication interventions for improving the communication skills of preschool children with non-progressive motor disorders. The Cochrane database of systematic reviews 7: cd012507	- Publication date Systematic review with 2/2 studies published pre-2013.
Perez-de la Cruz, Sagrario (2018) A bicentric controlled study on the effects of aquatic Ai Chi in Parkinson	- Intervention Aquatic intervention on balance, gait speed and quality of life of patients, not

Study	Reason for exclusion
disease . Complementary therapies in medicine 36: 147-153	an intervention to support people's social participation (for example leisure, family life, sex and relationships).
Petrenko, Christie L M; Demeusy, Elizabeth M; Alto, Michelle E (2019) Six-Month Follow-up of the Families on Track Intervention Pilot Trial for Children With Fetal Alcohol Spectrum Disorders and Their Families. Alcoholism, clinical and experimental research 43(10): 2242-2254	- Country Study conducted in the US.
Plow, Matthew, Bethoux, Francois, McDaniel, Corey et al. (2014) Randomized controlled pilot study of customized pamphlets to promote physical activity and symptom self-management in women with multiple sclerosis. Clinical rehabilitation 28(2): 139-48	- Country Study conducted in the US.
Plow, Matthew, Motl, Robert W, Finlayson, Marcia et al. (2020) Intervention Mediators in a Randomized Controlled Trial to Increase Physical Activity and Fatigue Self-management Behaviors Among Adults With Multiple Sclerosis. Annals of behavioral medicine: a publication of the Society of Behavioral Medicine 54(3): 213-221	- Country Study conducted in the US.
Pottgen, Jana, van de Vis, Wim, van Nunen, An et al. (2020) Psychobehavioral Treatment Options for Sexual Dysfunction in Multiple Sclerosis: A Systematic Review. International journal of MS care 22(6): 276-284	- Country Systematic review with 3/6 studies conducted in the US, and 3/6 studies conducted in Iran.
Powell, Janet M; Rich, Timothy J; Wise, Elizabeth K (2016) Effectiveness of Occupation- and Activity-Based Interventions to Improve Everyday Activities and Social Participation for People With Traumatic Brain Injury: A Systematic Review. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 70(3): 7003180040p1-9	- Publication date Systematic review with 19/19 studies published pre-2013.
Rezaei, Mojtaba, Sharifi, Amirina, Vaccaro, Alexander Richard et al. (2019) Home-Based Rehabilitation Programs: Promising Field to Maximize Function of Patients with Traumatic Spinal Cord Injury. Asian journal of neurosurgery 14(3): 634-640	- Publication date Systematic review with 15/15 studies published pre-2013.
Rezaei-Fard, M., Lotfi, R., Rahimzadeh, M. et al. (2019) Effectiveness of Sexual Counseling Using PLISSIT Model to Promote Sexual Function of Women with Spinal Cord Injury: A Randomized Controlled Trial. Sexuality and Disability 37(4): 511-519	- Country Study conducted in Iran.
Ribas, Camila Gemin, Alves da Silva, Leticia, Correa, Marina Ribas et al. (2017) Effectiveness of exergaming in improving functional balance, fatigue and quality of life in Parkinson's disease: A pilot randomized controlled trial. Parkinsonism & related disorders 38: 13-18	- Country Study conducted in Brazil.
Ridgel, Angela L, Walter, Benjamin L, Tatsuoka, Curtis et al. (2016) Enhanced Exercise Therapy in Parkinson's disease: A comparative effectiveness trial. Journal of science and medicine in sport 19(1): 12-7	- Country Study conducted in the US.
Robinson-Whelen, Susan, Hughes, Rosemary B, Taylor, Heather B et al. (2020) Promoting psychological health in women with SCI: Development of an online self-	- Country Study conducted in the US.

Study	Reason for exclusion
esteem intervention . Disability and health journal 13(2): 100867	
Rodriguez-Rajo, P, Leno Colorado, D, Ensenat-Cantalops, A et al. (2022) Rehabilitation of social cognition impairment after traumatic brain injury: a systematic review . Neurologia (Barcelona, Spain) 37(9): 767-780	- Publication date Systematic review with 2/10 studies published 2013 onwards, and 8/10 published onwards. Studies published 2013 or later were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Sadeghi Bahmani, Dena and Motl, Robert W (2021) Rate, burden, and treatment of sexual dysfunction in multiple sclerosis: The case for exercise training as a new treatment approach . Multiple sclerosis and related disorders 51: 102878	- Publication type Narrative review.
Sadeghi Bahmani, Dena, Motl, Robert W, Razazian, Nazanin et al. (2020) Aquatic exercising may improve sexual function in females with multiple sclerosis - an exploratory study . Multiple sclerosis and related disorders 43: 102106	- Country Study conducted in the US.
Salome, Angela, Sasso D'Elia, Tullia, Franchini, Giorgia et al. (2019) Occupational Therapy in Fatigue Management in Multiple Sclerosis: An Umbrella Review . Multiple sclerosis international 2019: 2027947	- Intervention Systematic review with 19/19 studies investigating interventions to manage fatigue, and not designed to support people's social participation (for example leisure, family life, sex and relationships).
Saxena, Shikha, Mitchell, Jacob, Ehsan, Annahita et al. (2020) Online peer mentorship programmes for children and adolescents with neurodevelopmental disabilities: A systematic review . Child: care, health and development 46(1): 132-148	- Country Systematic review with 5/11 of the included studies conducted in the US, 1/11 studies in Israel, and 5/11 studies in Europe. European studies were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Sayari, N., Vakilian, K., Khalajinia, Z. et al. (2022) Effectiveness of Relationship Enrichment Program (REP) on Sexual Dysfunction and Satisfaction of Females with Multiple Sclerosis-An Educational Study . Current Women's Health Reviews 18(3): e110821195557	- Country Study conducted in Iran.
Scholz, Maria, Haase, Rocco, Schriefer, Dirk et al. (2021) Electronic Health Interventions in the Case of Multiple Sclerosis: From Theory to Practice . Brain sciences 11(2)	- Study design (adults) Narrative review.
Schwartz, Anna E, van Walsem, Marleen R, Brean, Are et al. (2019) Therapeutic Use of Music, Dance, and Rhythmic Auditory Cueing for Patients with Huntington's Disease: A Systematic Review . Journal of Huntington's disease 8(4): 393-420	- Intervention Systematic review with 7/7 studies investigating interventions for cognitive, psychiatric and motor function in Huntington's disease, and not designed to support people's social participation (for example leisure, family life, sex and relationships).

Study	Reason for exclusion
Sherrington, C., Hassett, L., van den Berg, M. et al. (2018) The effectiveness of affordable technology in rehabilitation to improve mobility and physical activity: Amount (activity and mobility using technology) rehabilitation trial. <i>Annals of Physical and Rehabilitation Medicine</i>	- Intervention Intervention for physical activity and mobility in people with mobility limitations, not to support people's social participation (for example leisure, family life, sex and relationships).
Silva, Rosa, Bobrowicz-Campos, Elzbieta, Cardoso, Daniela et al. (2020) Effects of caregiver-provided individual cognitive interventions on cognition, social functioning and quality of life in older adults with major neurocognitive disorders: a systematic review. <i>JB I evidence synthesis</i> 18(4): 743-806	- Population Older adults with dementia. Not relevant according to protocol population criteria.
Simmons-Mackie, Nina; Raymer, Anastasia; Cherney, Leora R (2016) Communication Partner Training in Aphasia: An Updated Systematic Review. <i>Archives of physical medicine and rehabilitation</i> 97(12): 2202-2221e8	- Study design (adults) Systematic review (adult population) with 11/25 randomised controlled trials, 14/25 non-randomised studies. Randomised controlled trials which were published 2013 or later, were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Soendergaard, Pernille Langer, Arango-Lasprilla, Juan Carlos, Wolffbrandt, Mia Moth et al. (2023) Investigating the Effectiveness of a Family Intervention after Acquired Brain or Spinal Cord Injury: A Randomized Controlled Trial. <i>Journal of clinical medicine</i> 12(9)	- Intervention Family intervention to improve mental health QoL and reduce caregiver burden, not to support people's social participation (for example leisure, family life, sex and relationships).
Stapleton, Mary (2016) Effectiveness of Animal Assisted Therapy after brain injury: A bridge to improved outcomes in CRT. <i>NeuroRehabilitation</i> 39(1): 135-40	- Publication date All studies included are published pre-2013.
Suh, Yoojin, Motl, Robert W, Olsen, Connor et al. (2015) Pilot Trial of a Social Cognitive Theory-Based Physical Activity Intervention Delivered by Nonsupervised Technology in Persons With Multiple Sclerosis. <i>Journal of physical activity & health</i> 12(7): 924-30	- Country Conducted in the US.
Sukal-Moulton, Theresa, Egan, Tara, Johnson, Larke et al. (2022) Use of Frame Running for Adolescent Athletes With Movement Challenges: Study of Feasibility to Support Health and Participation. <i>Frontiers in sports and active living</i> 4: 830492	- Country Conducted in the US.
Tarakci, Ela, Yeldan, Ipek, Huseyinsinoglu, Burcu E et al. (2013) Group exercise training for balance, functional status, spasticity, fatigue and quality of life in multiple sclerosis: a randomized controlled trial. <i>Clinical rehabilitation</i> 27(9): 813-22	- Intervention Group exercise training on balance, functional status, spasticity, fatigue and quality of life in patients with multiple sclerosis, not to support people's social participation (for example leisure, family life, sex and relationships).
Tate, R.; Wakim, D.; Genders, M. (2015) A systematic review of the efficacy of community-based, leisure/social activity programmes for people with traumatic brain injury. <i>Brain Impairment</i> 15(3): 157-176	- Publication date Systematic review with 2/9 studies published 2013 onwards, and 7/9 published pre-2013. Studies published 2013 onwards were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.

Study	Reason for exclusion
Tlustos, Sarah J, Kirkwood, Michael W, Taylor, H Gerry et al. (2016) A randomized problem-solving trial for adolescent brain injury: Changes in social competence. Rehabilitation psychology 61(4): 347-357	- Country Studies conducted in the US.
Togher, Leanne, McDonald, Skye, Tate, Robyn et al. (2013) Training communication partners of people with severe traumatic brain injury improves everyday conversations: a multicenter single blind clinical trial. Journal of rehabilitation medicine 45(7): 637-45	- Study design (adults) Non-randomised study.
Togher, Leanne, McDonald, Skye, Tate, Robyn et al. (2016) The effectiveness of social communication partner training for adults with severe chronic TBI and their families using a measure of perceived communication ability. NeuroRehabilitation 38(3): 243-55	- Study design (adults) Non-randomised study.
Tonkin, Paige G, Miller, Timothy D, Hartmann, Tegan E et al. (2023) The effects of exercise on non-motor experiences of daily living experienced in Parkinson's Disease: A systematic review and network meta-analysis. Clinical parkinsonism & related disorders 9: 100203	- Intervention Systematic review with 5/5 studies investigating exercise training on non-motor experiences of daily living experienced in PD, and not designed to support people's social participation (for example leisure, family life, sex and relationships).
Trexler, Lance E; Parrott, Devan R; Malec, James F (2016) Replication of a Prospective Randomized Controlled Trial of Resource Facilitation to Improve Return to Work and School After Brain Injury. Archives of physical medicine and rehabilitation 97(2): 204-10	- Country Study conducted in the US.
Vallat-Azouvi, Claire, Azouvi, Philippe, Le-Bornec, Gaelle et al. (2019) Treatment of social cognition impairments in patients with traumatic brain injury: a critical review. Brain injury 33(1): 87-93	- Intervention Systematic review with 5/5 studies investigating the management of social cognition, and not interventions designed to support people's social participation (for example leisure, family life, sex and relationships).
van Bruggen-Rufi, Monique C H, Vink, Annemieke C, Wolterbeek, Ron et al. (2017) The Effect of Music Therapy in Patients with Huntington's Disease: A Randomized Controlled Trial. Journal of Huntington's disease 6(1): 63-72	- Intervention Group music therapy for communicative and expressive skills in relation to behaviour changes, not to support people's social participation (for example leisure, family life, sex and relationships).
van der Kolk, Nicolien M, Overeem, Sebastiaan, de Vries, Nienke M et al. (2015) Design of the Park-in-Shape study: a phase II double blind randomized controlled trial evaluating the effects of exercise on motor and non-motor symptoms in Parkinson's disease. BMC neurology 15: 56	- Publication type Protocol.
van Nimwegen, Marlies, Speelman, Arlene D, Overeem, Sebastiaan et al. (2013) Promotion of physical activity and fitness in sedentary patients with Parkinson's disease: randomised controlled trial. BMJ (Clinical research ed.) 346: f576	- Intervention Multifaceted behavioural change programme on physical activities in patients with PD, not an intervention to support people's social participation (for example leisure, family life, sex and relationships).

Study	Reason for exclusion
Vandenberg, Brooke E, Advocat, Jenny, Hassed, Craig et al. (2019) Mindfulness-based lifestyle programs for the self-management of Parkinson's disease in Australia. Health promotion international 34(4): 668-676	- Study design (adults) Qualitative study.
Wade, Shari L, Bedell, Gary, King, Jessica A et al. (2018) Social Participation and Navigation (SPAN) program for adolescents with acquired brain injury: Pilot findings. Rehabilitation psychology 63(3): 327-337	- Country Study conducted in the US.
Wade, Shari L, Cassedy, Amy E, Taylor, H Gerry et al. (2019) Adolescent quality of life following family problem-solving treatment for brain injury. Journal of consulting and clinical psychology 87(11): 1043-1055	- Country Study conducted in the US.
Wade, Shari L, Fisher, Allison P, Kaizar, Eloise E et al. (2019) Recovery Trajectories of Child and Family Outcomes Following Online Family Problem-Solving Therapy for Children and Adolescents after Traumatic Brain Injury. Journal of the International Neuropsychological Society : JINS 25(9): 941-949	- Country Study conducted in the US.
Wade, Shari L, Kaizar, Eloise E, Narad, Megan et al. (2018) Online Family Problem-solving Treatment for Pediatric Traumatic Brain Injury. Pediatrics 142(6)	- Country Study conducted in the US.
Wade, Shari L, Kurowski, Brad G, Kirkwood, Michael W et al. (2015) Online problem-solving therapy after traumatic brain injury: a randomized controlled trial. Pediatrics 135(2): e487-95	- Country Study conducted in the US.
Walklet, Elaine, Muse, Kate, Meyrick, Jane et al. (2016) Do Psychosocial Interventions Improve Quality of Life and Wellbeing in Adults with Neuromuscular Disorders? A Systematic Review and Narrative Synthesis. Journal of neuromuscular diseases 3(3): 347-362	- Study design (adults) Systematic review (adult population) with 3/10 randomised controlled trials, 7/10 non-randomised studies. Randomised controlled trials which were published 2013 or later, were checked against protocol criteria and were either not relevant or had been separately located by the literature search and screened.
Welsby, Ellana; Berrigan, Sonja; Laver, Kate (2019) Effectiveness of occupational therapy intervention for people with Parkinson's disease: Systematic review. Australian occupational therapy journal 66(6): 731-738	- Study design (adults) Narrative review.
Westerhof-Evers, H.J., Visser-Keizer, A.C., Fasotti, L. et al. (2019) Social cognition and emotion regulation: a multifaceted treatment (T-ScEmo) for patients with traumatic brain injury. Clinical rehabilitation 33(5): 820-833	- Publication type Protocol.
Winter, Laraine, Moriarty, Helene J, Robinson, Keith et al. (2016) Efficacy and acceptability of a home-based, family-inclusive intervention for veterans with TBI: A randomized controlled trial. Brain injury 30(4): 373-387	- Country Study conducted in the US.
Wobma, Ruth, Nijland, Rinske H M, Ket, Johannes C F et al. (2016) Evidence for peer support in rehabilitation for individuals with acquired brain injury: A systematic review. Journal of rehabilitation medicine 48(10): 837-840	- Publication date Systematic review with 2/2 studies published pre-2013.
Wood, Julia; Henderson, Whitney; Foster, Erin R (2022) Occupational Therapy Practice Guidelines for People With Parkinson's Disease. The American journal of	- Publication type Practice guideline.

Study	Reason for exclusion
occupational therapy : official publication of the American Occupational Therapy Association 76(3)	
Yu, Chih-Huang and Mathiowetz, Virgil (2014) Systematic review of occupational therapy-related interventions for people with multiple sclerosis: part 1. Activity and participation. The American journal of occupational therapy : official publication of the American Occupational Therapy Association 68(1): 27-32	- Study design (adults) Narrative review.
Zale, Emily L, Pierre-Louis, Catherine, Macklin, Eric A et al. (2018) The impact of a mind-body program on multiple dimensions of resiliency among geographically diverse patients with neurofibromatosis. Journal of neuro-oncology 137(2): 321-329	- Country Study conducted in the US.
Zamani, Maryam, Tavoli, Azadeh, Yazd Khasti, Behjat et al. (2017) Sexual Therapy for Women with Multiple Sclerosis and Its Impact on Quality of Life. Iranian journal of psychiatry 12(1): 58-65	- Country Study conducted in Iran.
Zhang, Nanhua, Kaizar, Eloise E, Narad, Megan E et al. (2019) Examination of Injury, Host, and Social-Environmental Moderators of Online Family Problem Solving Treatment Efficacy for Pediatric Traumatic Brain Injury Using an Individual Participant Data Meta-Analytic Approach. Journal of neurotrauma 36(7): 1147-1155	- Country Study conducted in the US.

Excluded economic studies

See Supplement 2 for the list of excluded studies across all reviews.

Appendix K Research recommendations – full details

Research recommendations for review question: What is the effectiveness of interventions or approaches for supporting people's social participation (for example leisure, family life, sex and relationships)?

No research recommendations were made for this review question.