

Author, Year PEDro Score, Country	Sample size	Intervention	Outcome and significance: (+) significant (-) not significant
Aben et al., 2013 PEDro score: 8 Country: The Netherlands	153 patients with chronic stroke	Memory self-efficacy training program (n=77) vs. Peer support program (n=76) Treatment details: 9 x 1-hour sessions, 2 times/week. Memory self-efficacy training program: group program with 4-6 participants to teach internal/external memory strategies and psychoeducation regarding the influence of negative perceptual bias. Peer support program: time-matched general stroke education group program.	At 5 weeks (post-treatment): (+) Metamemory-In-Adulthood Questionnaire (-) Center of Epidemiological Studies Depression Scale (-) EuroQoL EQ5D Questionnaire – utility score (-) EuroQoL EQ5D Questionnaire – Visual Analogue Scale (-) WhoQol Brief Questionnaire – psychological quality of life (-) WhoQol Brief Questionnaire – social quality of life (-) Auditory Verbal Learning Test – delayed recall (-) Rivermead Behavioral Memory Test – Story Recall (delayed recall)
Barker-Collo et al., 2009 PEDro score: 8 Country: New Zealand	78 patients with chronic stroke	Attention process training (n=38) vs. Standard care (n=40) Treatment details: 1 hour/weekday for 4 weeks	At 4 weeks (post-treatment): (+) Integrated Visual Auditory Continuous Performance Test (IVA-CPT) – Full attention (+) IVA-CPT – Auditory attention (-) IVA-PCT – Visual attention (-) Paced Auditory Serial Addition Test (-) Trail Making Test – A (-) Trail Making Test – B (-) Bells Test (-) Short Form-36 (SF-36) – Physical (-) SF-36 – Mental At 6 months (follow-up): (+) IVA-CPT – Full attention (-) IVA-CPT – Auditory attention

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			(-) IVA-PCT – Visual attention (-) Paced Auditory Serial Addition Test (-) Trail Making Test – A (-) Trail Making Test – B (-) Bells Test (-) SF-36 – Physical (-) SF-36 – Mental (-) Modified Rankin Scale (-) Cognitive Failure Questionnaire (-) General Health Questionnaire – 28
Chen et al., 2012 PEDro score: 5 Country: USA	11 patients with acute/subacute stroke	Global attention processing training (n=6) vs. Rote repetition training (n=5) Treatment details: 90 minutes Global attention processing training (global to local encoding): copying a set of Rey-Osterrieth Complex Figure (ROCF) subunits ranging from general picture to specific details. The sequential tracing from global to local was repeated 5 times. Rote repetition training (no encoding strategy): copying one ROCF presented entirely (global + specific features). The rote tracing was repeated 5 times. Both training sessions consisted of 3 phases: 1. Pre-training phase (immediate reproduction of ROCF) 2. training phase 3. Post-training phase (30 minutes after phase 2, delayed reproduction of ROCF)	Immediately post-training: (-) ROCF Copy/configural organization at encoding (+) ROCF Immediate recall accuracy score 30 minutes post training: (-) ROCF Copy/configural organization at encoding (+) ROCF Delayed recall / recognition score At 1 day post-training: (+) ROCF Copy/configural organization at encoding (+) ROCF Immediate recall accuracy score (-) ROCF Delayed recall / recognition score At 2 and 4 weeks post-training: (-) ROCF Copy/configural organization at encoding (-) ROCF Immediate recall accuracy score (-) ROCF Delayed recall / recognition score

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Doornhein & De Haan, 1998 PEDro score: 4 Country: The Netherlands	12 patients with subacute stroke	Cognitive rehabilitation memory training programme (n=6) vs. Non-specific memory training programme (n=6) Treatment details: 2 sessions/week (duration not provided) for 4 weeks. Cognitive rehabilitation memory training programme comprised six simple memory strategies that transferred to daily memory problems. Non-specific training programme used repetitive drills and practice of memory tasks.	At 4 weeks (post treatment): +) Name-Face Paired Associated Memory Test (-) Stylus Maze Test* (-) 15 Words Test (-) Oxford Recurring Faces Test (-) Memory Questionnaire * There was potentially a ceiling effect for this test.
Faria et al., 2016 PEDro score: 7 Country: Portugal	18 patients with chronic stroke	Virtual reality (VR)-based cognitive rehabilitation (n=9) vs. Conventional cognitive rehabilitation (n=9) Treatment details: 12 x 20-minute sessions over 4-6 weeks (weekly frequency not specified). VR-based cognitive rehabilitation: Reh@City 3D virtual simulation of a city (environment) that uses daily routines integrating memory, attention, visuo-spatial and executive functioning abilities. Levels of difficulty were adjustable. Conventional cognitive rehabilitation: time-matched cognitive training comprising puzzles, calculus, problem resolution, shape sorting, etc.	At 4-6 weeks (post-treatment): (+) Addenbrooke Cognitive Examination (ACE) – total (+) ACE – attention (-) ACE – memory (+) ACE – fluency (-) ACE – language (-) ACE – visuospatial (+) Mini-Mental State Examination (-) Trail Making Test – A (-) Trail Making Test – B (-) Picture Arrangement (WAIS – III) (-) Stroke Impact Scale
Fish et al., 2008 PEDro score: 5 randomised	36 patients with chronic stroke	Paging system vs. No treatment	At 9 weeks (post T2): (+) Memory diary - % of tasks achieved

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control crossover design Country: UK		Treatment details: The NeuroPager sent reminders to assist with memory and planning. Group A (n=24) Group B (n=12) 3-stage trial: T1 – 2 weeks (baseline, no intervention) T2 – 7 weeks (Group A: pager; Group B: no pager) T3 – 7 weeks (Group A: no pager; Group B: pager).	At 16 weeks (post T3) (+) Memory diary - % of tasks achieved* * In favour of Group B vs. Group A. Note: At 16 weeks Group A's performance had deteriorated to baseline levels (i.e. participants did not retain the benefits gained immediately post-treatment).
Gamito et al., 2015 PEDro score: 3 Country: Portugal	20 patients with stroke (stage of stroke recovery not specified)	Virtual reality (VR) – based cognitive rehabilitation (n=10) vs. No VR-based cognitive rehabilitation (n=10) Treatment details: 60-minutes/session, 2-3 times/week for 4-6 weeks. VR-based cognitive rehabilitation: Serious Games application that trained working memory, spatial orientation, selective attention, recognition memory, calculation. The control group was placed on a waiting list to receive VR cognitive training.	At 4-6 weeks (post-treatment): (+) Wechsler Memory Scale total score (+) Toulouse-Pieron Test – work efficiency (-) Rey Complex Figure – immediate recall
Giaquinto & Fraioli, 2003 PEDro score: 4 Country: Italy	40 patients with acute stroke	Attention training with cutaneous electrical stimulation (n=20) vs. No training (n=20) Treatment details: 40-minute/session, 5 times/week for 3 weeks. Attention training: computerized discrimination reaction time task.	At 3 weeks (post-treatment): (-) Functional Independence Measure (+) EEG signals - N140 component of somatosensory event related potential

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		<p>Electrical stimulation: 0.1ms of pulse duration, 25mA of stimulus amplitude.</p> <p>Both groups received conventional rehabilitation that comprised physical and occupational therapy (frequency and duration of sessions not specified).</p>	
<p>Mazer et al., 2003 PEDro score: 7 Country: Canada</p>	<p>97 patients with subacute/chronic stroke</p>	<p>Useful Field of View (UFOV) visual attention retraining program (n=47) vs. Traditional computerized visuoperception training (n=50) Treatment details: 20 x 30-60-minutes/ session, 2-4 times/week for 5 weeks. UFOV: training of visual processing speed, divided attention, and selective attention using the UFOV computer program Traditional computerized visuoperception training: using commercially-available computer software (Tetris, Mastermind, Othello, Jigs@w Puzzle).</p>	<p>At 5 weeks (post-treatment): (-) Useful field of view (UFOV) – total (-) UFOV - processing speed (-) UFOV - divided attention (-) UFOV - selective attention (-) Complex Reaction Timer (-) Motor-Free Visual Perception Test (-) Single and Double Letter Cancellation Test (-) Money Road Map Test of Direction Change (-) Trail Making Test A & B (-) Bells Test (-) Charron Test (-) Test of Everyday Attention (-) On-road driving evaluation</p>
<p>McEwen et al., 2015 PEDro score: 5 Country: Canada</p>	<p>35 patients with acute/subacute stroke</p>	<p>Cognitive Orientation to Daily Occupational Performance (CO-OP) (n=19) vs. Conventional rehabilitation (n=16) Treatment details: CO-OP: 45 minute sessions, approx. 2x/week, maximum of 10 CO-OP sessions + additional conventional</p>	<p>At 10 sessions (post-treatment): (+) Performance Quality Rating Scale (PQRS) – trained (+) PQRS – untrained (-) Canadian Occupational Performance Measure (COPM) – performance trained (-) COPM – performance untrained (-) COPM – satisfaction trained</p>

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		rehabilitation (average 13 sessions). CO-OP is a client-centered, performance-based, problem solving approach that enables skill acquisition through a process of strategy use and guided discovery. Conventional rehabilitation: 45-60 minutes/session, approx. 2x/week, average 12 sessions.	(-) COPM – satisfaction untrained (-) Self-Efficacy Gauge At 3 months post-treatment (follow-up): (+) PQRS – trained (+) PQRS – untrained (-) COPM – performance trained (-) COPM – performance untrained (-) COPM – satisfaction trained (-) COPM – satisfaction untrained (-) CPI – importance of participation (+) CPI – control over participation* (-) CPI – satisfaction with participation (+) Stroke Impact Scale – participation* (+) Self-Efficacy Gauge* Note: Median and non-parametric effect sizes were reported given that outcome variables were not normally distributed. Results (+) reflect medium to large effect sizes for the treatment group over the control group. * Change from post-treatment to follow-up
Polatajko et al., 2012 PEDro score: 4 Country: Canada	20 patients with chronic stroke	Cognitive Orientation to Occupational Performance (CO-OP) approach (n=11) vs. Conventional occupational therapy (n=9) Treatment details: 10 1-hour sessions (duration and frequency not specified)	At 10 sessions (post-treatment): (+) Performance Quality Rating Scale (+) Canadian Occupational Performance Measure (COPM) – Performance (-) COPM – Satisfaction

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		CO-OP: client-centred, performance-based, problem solving approach to enable skill acquisition through a process of strategy use and guided discovery. Conventional OT: time-matched task-specific and component-based training.	
Prokopenko et al., 2013 PEDro score: 6 Country: Russia	43 patients with acute/subacute stroke	Computer training + conventional rehabilitation (n=24) vs. Conventional rehabilitation (n=19) Treatment details: 30-minutes/session, 7 days/week for 2 weeks (up to 15 hours of treatment). Computer training: Schulte's tables to improve sustained, selective, divided and alternating attention; included biological feedback.	At 2 weeks (post-treatment): (-) Mini-Mental Status Examination (-) Montreal Scale of Cognitive Assessment (+) Clock Drawing Test (+) Shulte's test (-) Hospital Anxiety and Depression Scale (HADS) – Anxiety (-) HADS – Depression (+) Frontal Assessment Battery
Rose et al., 1999 PEDro score: 5 Country: UK	48 patients with stroke (phase of stroke recovery not specified) + 48 healthy controls	Active virtual reality (VR) memory retraining program (n=24 patients with stroke) vs. Passive VR memory retraining program (n=24 patients with stroke) Treatment details: 1 session (duration not specified) Active VR memory retraining program: exploration of virtual environment to locate a particular object using a joystick. Passive VR memory retraining program: passive exploration of a virtual environment to locate a particular object (no joystick).	At end of 1 training session (post-treatment): (+) Spatial recognition test (-) Object recognition test

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Sturm et al., 1991 PEDro score: N/A (quasi-experimental cross-over design) Country: Germany	35 patients with subacute stroke	Early computer assisted reaction training (n=13) vs. Late computer assisted reaction training (n=22) Treatment details: Computer-assisted reaction training using programmable versions of the Wiener Determinationsgerat (15 minutes) and the Wiener Konzentrationsgerat (a.k.a. Cognitrone, 15 minutes); 14 sessions spread over 3 weeks. Stage I (training/no training): 3 weeks Stage II (crossover training/no training): 3 weeks Stage III (no training): 6 weeks	At 12 weeks (follow-up): Comparison between treatment and control according to systematic review by Lincoln et al., (2000): (+) Wiener Determinationsgerat (-) Wiener Reaktionsgerat (-) Cognitrone (+) Wiener Vigilanzgerat (-) Test d2 (-) Leistungsprufsystem (-)Wechsler Adult Intelligence Scale – Similarities subscale (-) Intelligenz-Struktur-Test (-) Raven Standard Progressive Matrices
Sturm et al., 1997 PEDro score: N/A (non-randomized study) Country: Germany	38 patients with subacute/chronic stroke.	Game-like computerized adaptive training of attention Treatment details: Attention training addressed two of four domains: alertness, vigilance, selective attention and divided attention, whereby each patient received training in their 2 most impaired domains. Training for each attention domain was provided for 14 x 60-minute sessions over 3 weeks (total 28 sessions/participant).	At end of training period (post-treatment): (+) Response time without warning signal* (alertness) (-) Response time with warning signal (alertness) (+) Hit-rate* (vigilance) (-) Response with warning (vigilance) (+) Response time with warning* (selective attention) (-) Error rate (selective attention) (-) Response time with warning (divided attention) (+) Error rate* (divided attention) *Refers to “domain-specific training effects”

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			where significant improvement are achieved only by specific training vs. unspecific training.
Winkens et al., 2009 PEDro score: 7 Country: The Netherlands	37 patients with subacute/chronic stroke	Time pressure management (n=20) vs. Conventional rehabilitation (n=17) Treatment details: 10 hours at the rate of 1, 1.5, or 2 hours/week. Time pressure management: teaching preventative and management cognitive strategies. Conventional therapy: education, practical advice; 1 participating center trained patients to perform tasks while using compensatory strategies.	At 10 hours of treatment (post-treatment): (+) Information Intake Task (IIT) – no. of strategies (-) IIT – reproduction score (-) Mental Slowness Observation Test (MSOT) – no. of strategies (-) MSOT – no. of correct elements (-) MSOT – time (-) Mental Slowness Questionnaire (-) Barthel Index (-) Fatigue Severity Scale (-) Center for Epidemiologic Studies Depression Scale (-) EuroQol-5D (-) Symbol Digit Modalities Test (-) Paced Auditory Serial Addition Test (-) Auditory Verbal Learning Test (-) Trail Making Test – A (-) Trail Making Test - B At 3 months (follow-up): (-) IIT – no. of used strategies (-) IIT – reproduction score (-) MSOT – no. of used strategies (-) MSOT – no. of correct elements (+) MSOT – time (sec) (-) Mental Slowness Questionnaire (-) Barthel Index

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			(-) Fatigue Severity Scale (-) Center for Epidemiologic Studies Depression Scale (-) EuroQol-5D (-) Symbol Digit Modalities Test (-) Paced Auditory Serial Addition Test (-) Auditory Verbal Learning Test (-) Trail Making Test – A (-) Trail Making Test - B
Wolf et al., 2016 PEDro score: 5 Country: Canada	35 patients with acute/subacute stroke	Cognitive Orientation to Daily Occupational Performance (CO-OP) (n=19) vs. Conventional occupational therapy (n=16) Treatment details: 10 sessions (duration and frequency not specified). CO-OP is a client-centred, performance-based, problem solving approach that enables skill acquisition through a process of strategy use and guided discovery.	At 10 sessions (post-treatment): (+) Stroke Impact Scale (SIS) – Activities of daily living (ADLs)* (-) SIS – Mobility (+) SIS – Hand function* (+) SIS – Strength* (+) SIS – Recovery* (+) SIS – Physical * (+) SIS – Memory* (+) SIS – Emotion* (+) SIS – Communication* (-) Action Research Arm Test (ARAT) (+) ARAT – Impairment* (+) Delis-Kaplan Executive Function System – Trail Making subtest * At 3 months post-treatment (follow-up): (-) SIS – ADLs (-) SIS – Mobility (+) SIS – Hand function* (-) SIS – Strength

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			(-) SIS – Recovery (-) SIS – Physical (-) SIS – Memory (-) SIS – Emotion (+) SIS – Communication* (-) ARAT (+) ARAT – Impairment* (+) Delis-Kaplan Executive Function System – Trail Making subtest * * Medium to large effect sizes for the CO-OP approach over the control group Median and non-parametric effect sizes were reported given that outcome variables were not normally distributed.