Supplementary material 17 Overview of outcome measures gathered from included studies

Overview of outcome measures gathered from included studies								
Study ID	**Primary outcomes**	**Secondary outcomes**						
	ADL	**eADL**	**QoL** Includes: Social activities and participation QoL Mobility, Navigation and safety	**Psychological & mental health** (for stroke survivors, family, friends and carers) Stroke survivor	**Perceptual function**	**Adverse events**	**Sensation, Motor (including balance), Cognition (including attention)**	**Others**
notes	N=1/2/3etc							
An 2019 [1]	1 Korean-modified Barthel Index	-	-	-	-	-	2 Motor: Postural Assessment Scale for Stroke; Balance posture ratio	Burke Lateropulsion Scale
An 2020 [2]	1 Korean-					1	3 Motor:	Burke Lateropulsion Scale

	modified Barthel Index	-	-	-	-	number reported	Fugl-Meyer Motor Assessment-Lower Extremity Balance; Berg Balance Scale; Postural Assessment Scale for Stroke	
Bergmann 2018 [3]	-	-	2 Performance Orientated Mobility Assessment; Functional Ambulation Classification	-	1 Subjective visual vertical	-	-	Burke Lateropulsion Scale; Scale of Contraversive Pushing
Carey 2011 [4]	-	-	-	-	1 Standardized somatosensory deficit (combines limb position sense and tactile object recognition)	1 number reported	-	-
Chen 2012 [5]					3 Rey-Osterrieth Complex Figure; Modified Taylor			-

-	-	-	-	-	Complex Figure; Medical College of Georgia Complex Figure 1 and Figure 2	-	-	
Cho 2015 [6]	-	-	-	-	1 Motor Free Visual Perception test	-	-	Brainwaves (EEG)
Choi 2018 [7]	-	-	2 10-meter walking test; Timed up and go	-	1 Motor Free Visual Perception test	-	1 Motor: Berg Balance Scale	-
De Bruyn 2018 [8]	-	-	-	-	4 Nottingham sensory assessment perceptual threshold of touch; Texture discrimination test; Wrist position sense test; Functional tactile object recognition test	1 number reported	4 Motor: Action Research Arm Test; Fugl-Meyer Assessment; Stroke upper limb capacity scale; ABILHAND questionnaire	-
Edmans 2000 [9]	2 Barthel	-	-	-	1 Rivermead Perceptual	-	1 Motor: Rivermead	Length of Hospital stay; OT attendances;

					Assessment Battery		Motor Assessment Goss Function Scale	OT treatment time
	ADL Index; Edmans ADL Index							
Kang 2009 [10]	1 Modified Barthel Index	-	-	-	1 Motor Free Visual Perception test	-	1 Cognitive: modified Mental State Examination	Interest in Intervention
Kim 2015 [11]	-	-	2 Walking speed: 10-meter walking test; Timed up and go	-	1 Pressure Error (dynamometer)	-	2 Motor: Balancia, Functional Reach test	-
Koo 2018 [12]	1 Korean-modified Barthel Index	-	1 Functional Ambulation Category	-	2 Erasmus MC modifications to the revised Nottingham sensory assessment; stereognosis subscale	1 number reported	3 Sensory: Semmes-Weinstein monofilament examination Motor: Manual Function Test; Brunnstrom Classification	-
Lee 2021 [13]	1 Modified	-	-	-	1 rNSA Kinesthetic	-	4 Sensory: Semmes-Weinstein	1 Surface

	Barthel Index				subtest		monofilament examination Motor: Fugl-Meyer Assessment; grip dynamometer; Box and Block Test	electromyography
Lincoln 1985 [14]	1 Rivermead ADL scale	-	-	-	1 Rivermead Perceptual Assessment Battery	-	-	-
Park 2015 [15]	-	-	-	-	1 Motor Free Visual Perception test	-	1 Cognitive: Lowenstein Occupational Therapy Cognitive Assessment	-
Seim 2021 [16]	-	-	-	-	-	-	2 Sensory: Semmes-Weinstein monofilament exam Motor: Voluntary angular range of	1 Modified Ashworth Scale

							motion	
Yang 2015 [17]	-	-	-	-	-	1 number reported	2 Motor: Berg Balance Scale; Fugl-Meyer Assessment	1 Scale for Contraversive Pushing
Yun 2018 [18]	1 Korean-modified Barthel Index	-	-	-	-	1 number reported	2 Motor: Berg Balance Scale; Fugl-Meyer Assessment	3 Burke Lateropulsion Scale; Postural Assessment for Stroke; Somatosensory Evoked Potentials

References

1.	An C-m, Roh J-s, Kim T-h, Choi H-s, Choi K-h, Kim G-m. Effects of Game-based Postural Vertical Training on Pusher Behavior, Postural Control, and Activity of Daily Living in Patients With Acute Stroke: A Pilot Study. *Physical Therapy Korea* 2019;**26**:57-66. http://dx.doi.org/10.12674/ptk.2019.26.3.057

2.	An CM, Ko MH, Kim DH, Kim GW. Effect of postural training using a whole-body tilt apparatus in subacute stroke patients with lateropulsion: A single-blinded randomized controlled trial. *Ann Phys Rehabil Med* 2021;**64**:101393. http://dx.doi.org/10.1016/j.rehab.2020.05.001

3.	Bergmann J, Krewer C, Jahn K, Muller F. Robot-assisted gait training to reduce pusher behavior: A randomized controlled trial. *Neurology* 2018;**91**:e1319-e27. http://dx.doi.org/10.1212/WNL.0000000000006276

4.	Carey L, Macdonell R, Matyas TA. SENSe: Study of the Effectiveness of Neurorehabilitation on Sensation: a randomized controlled trial. *Neurorehabil Neural Repair* 2011;**25**:304-13. http://dx.doi.org/10.1177/1545968310397705

5.	Chen P, Hartman AJ, Priscilla Galarza C, DeLuca J. Global processing training to improve visuospatial memory deficits after right-brain stroke. *Arch Clin Neuropsychol* 2012;**27**:891-905. http://dx.doi.org/10.1093/arclin/acs089

6.	Cho HY, Kim K, Lee B, Jung J. The effect of neurofeedback on a brain wave and visual perception in stroke: a randomized control trial. *J Phys Ther Sci* 2015;**27**:673-6. http://dx.doi.org/10.1589/jpts.27.673

7.	Choi D, Choi W, Lee S. Influence of Nintendo Wii Fit Balance Game on Visual Perception, Postural Balance, and Walking in Stroke Survivors: A Pilot Randomized Clinical Trial. *Games for Health Journal* 2018;**7**:377-84. http://dx.doi.org/10.1089/g4h.2017.0126

8.	De Bruyn N, Saenen L, Thijs L, Van Gils A, Ceulemans E, Essers B*, et al.* Sensorimotor vs. Motor Upper Limb Therapy for Patients With Motor and Somatosensory Deficits: A Randomized Controlled Trial in the Early Rehabilitation Phase After Stroke. *Front Neurol* 2020;**11**:597666. http://dx.doi.org/10.3389/fneur.2020.597666

9.	Edmans JA, Webster J, Lincoln NB. A comparison of two approaches in the treatment of perceptual problems after stroke. *Clin Rehabil* 2000;**14**:230-43. http://dx.doi.org/10.1191/026921500673333145

10.	Si Hyun K, Kim DK, Kyung Mook S, Kwang Nam C, Jin Yong Y, Sang Yoon S*, et al.* A computerized visual perception rehabilitation programme with interactive computer interface using motion tracking technology -- a randomized controlled, single-blinded, pilot clinical trial study. *Clin Rehabil* 2009;**23**:434-44. http://dx.doi.org/10.1177/0269215508101732

11.	Kim B-s, Bang D-h, Shin W-s. Effects of Pressure Sense Perception Training on Unstable Surface on Somatosensory, Balance and Gait Function in Patients with Stroke. *Journal of the Korean Society of Physical Medicine* 2015;**10**:19-27. http://dx.doi.org/10.13066/kspm.2015.10.3.19

12.	Koo WR, Jang BH, Kim CR. Effects of Anodal Transcranial Direct Current Stimulation on Somatosensory Recovery After Stroke: A Randomized Controlled Trial. *Am J Phys Med Rehabil* 2018;**97**:507-13. http://dx.doi.org/10.1097/PHM.0000000000000910

13.	Lee HC, Kuo FL, Lin YN, Liou TH, Lin JC, Huang SW. Effects of Robot-Assisted Rehabilitation on Hand Function of People With Stroke: A Randomized, Crossover-

Controlled, Assessor-Blinded Study. *Am J Occup Ther* 2021;**75**:7501205020p1-p11. http://dx.doi.org/10.5014/ajot.2021.038232

14.   Lincoln NB, Whiting SE, Cockburn J, Bhavnani G. An evaluation of perceptual retraining. *Int Rehabil Med* 1985;**7**:99-101. http://dx.doi.org/10.3109/03790798509166132

15.   Park JH, Park JH. The effects of a Korean computer-based cognitive rehabilitation program on cognitive function and visual perception ability of patients with acute stroke. *J Phys Ther Sci* 2015;**27**:2577-9. http://dx.doi.org/10.1589/jpts.27.2577

16.   Seim CE, Wolf SL, Starner TE. Wearable vibrotactile stimulation for upper extremity rehabilitation in chronic stroke: clinical feasibility trial using the VTS Glove. *J Neuroeng Rehabil* 2021;**18**:14. http://dx.doi.org/10.1186/s12984-021-00813-7

17.   Yang YR, Chen YH, Chang HC, Chan RC, Wei SH, Wang RY. Effects of interactive visual feedback training on post-stroke pusher syndrome: a pilot randomized controlled study. *Clin Rehabil* 2015;**29**:987-93. http://dx.doi.org/10.1177/0269215514564898

18.   Yun N, Joo MC, Kim SC, Kim MS. Robot-assisted gait training effectively improved lateropulsion in subacute stroke patients: a single-blinded randomized controlled trial. *Eur J Phys Rehabil Med* 2018;**54**:827-36. http://dx.doi.org/10.23736/S1973-9087.18.05077-3