- 1 Excluded studies
- We excluded 10 studies after full-text retrieval ¹⁻¹⁰. Rationales are provided in Table 1.
- 3 Table 1 Characteristics of excluded studies

| Study | Reason for exclusion |
|-----------------------------------|---|
| Dannhauser, et al. 8 | Intervention arm was sequential design |
| Fogarty, et al. ⁵ | Global cognitive function measures not reported |
| Hagovska and Nagyova ² | Not all aspects of the intervention arm were |
| | delivered as combined simultaneous cognitive and |
| | physical activity |
| Hagovska, et al. 1 | Not all aspects of the intervention arm were |
| | delivered as combined simultaneous cognitive and |
| | physical activity |
| Hughes, et al. 6 | Diagnostic criteria not specified |
| Lam, et al. 7 | Some of the sample was recruited from residential |
| | care and not analysed separately |
| Mirelman, et al. 4 | Global cognitive function measures not reported |
| Styliadis, et al. 9 | Combined intervention arm was sequential design |
| Sungkarat, et al. ³ | Global cognitive function measures not reported |
| Wei and Ji 10 | Sample recruited from residential care |

References

- 1. Hagovska M, Takáč P, Dzvoník O. Effect of a combining cognitive and balanced training on the cognitive, postural and functional status of seniors with a mild cognitive deficit in a randomized, controlled trial. *European journal of physical and rehabilitation medicine* 2016;52(1):101-09.
- 2. Hagovska M, Nagyova I. The transfer of skills from cognitive and physical training to activities of daily living: a randomised controlled study. *European journal of ageing* 2017;14(2):133-42.
- 3. Sungkarat S, Boripuntakul S, Chattipakorn N, et al. Effects of tai chi on cognition and fall risk in older adults with mild cognitive impairment: a randomized controlled trial. *Journal of the American Geriatrics Society* 2017;65(4):721-27.
- 4. Mirelman A, Rochester L, Maidan I, et al. Addition of a non-immersive virtual reality component to treadmill training to reduce fall risk in older adults (V-TIME): a randomised controlled trial. *The Lancet* 2016;388(10050):1170-82.
- 5. Fogarty JN, Murphy KJ, McFarlane B, et al. Taoist Tai Chi® and memory intervention for individuals with mild cognitive impairment. *Journal of aging and physical activity* 2016;24(2):169-80.
- 6. Hughes TF, Flatt JD, Fu B, et al. Interactive video gaming compared with health education in older adults with mild cognitive impairment: a feasibility study. *International journal of geriatric psychiatry* 2014;29(9):890-98.
- 7. Lam L, Chan W, Kwok T, et al. Effectiveness of Tai Chi in maintenance of cognitive and functional abilities in mild cognitive impairment: a randomised controlled trial. *Hong Kong Med J* 2014;20(3 Suppl 3):20-3.
- 8. Dannhauser TM, Cleverley M, Whitfield TJ, et al. A complex multimodal activity intervention to reduce the risk of dementia in mild cognitive impairment—ThinkingFit: pilot and feasibility study for a randomized controlled trial. *BMC psychiatry* 2014;14(1):129.
- 9. Styliadis C, Kartsidis P, Paraskevopoulos E, et al. Neuroplastic effects of combined computerized physical and cognitive training in elderly individuals at risk for dementia: an eLORETA controlled study on resting states. *Neural plasticity* 2015;2015
- 10. Wei X-h, Ji L-l. Effect of handball training on cognitive ability in elderly with mild cognitive impairment. *Neuroscience letters* 2014;566:98-101.