

S4 Table: Quality assessment of SR on PA effect on cognition in older adults

AMSTAR (High= 8-11, Good= 5-7, Low= <5)

Key: 1. 'a priori design; 2. duplicate study selection and data extraction; 3. comprehensive literature search; 4. Status of publication as an inclusion criterion; 5. List of studies (included and excluded provided)?; 6. Characteristics of the included studies provided? 7. Scientific quality of the included studies assessed and documented; 8. Scientific quality of the included studies considered in formulating conclusions; 9. Appropriate method to combine findings; 10. Publication bias; 11. Conflict of interest

| Author (Year) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Ranking |
|----------------|---|---|---|---|---|---|---|---|---|----|----|---------|
| Angevaren 2008 | Y | Y | Y | N | Y | Y | Y | Y | Y | N | N | High |
| Balsamo 2013 | N | N | Y | N | N | Y | N | N | N | N | Y | Low |
| Cai 2015 | Y | N | Y | N | Y | Y | N | Y | N | N | N | Good |
| Carvalho 2014 | Y | Y | Y | N | N | Y | Y | Y | Y | N | Y | High |
| Chang 2012 | Y | U | Y | N | N | Y | U | Y | N | N | N | Low |
| Coelho 2013 | Y | N | Y | N | N | Y | N | Y | Y | Y | Y | Good |
| Colcombe 2003 | Y | N | Y | Y | N | N | N | Y | Y | N | Y | Good |
| Gates 2013 | Y | Y | Y | N | N | Y | Y | Y | Y | N | Y | High |
| Kelly 2014 | Y | Y | Y | Y | Y | Y | N | Y | Y | N | Y | High |
| Ohman 2014 | Y | Y | Y | N | N | Y | Y | Y | Y | N | Y | High |
| Patterson 2010 | Y | Y | Y | N | N | N | Y | Y | N | N | Y | Good |
| Sherder 2014 | Y | Y | Y | N | N | Y | N | Y | Y | Y | Y | High |
| Tseng 2011 | Y | Y | Y | Y | Y | Y | Y | Y | N | N | N | High |
| Uffellen 2008 | Y | Y | Y | N | Y | Y | Y | Y | Y | N | Y | High |