

Table S2 Quality assessment tool

Quality criteria	Quality score
Is the participation rate $\geq 70\%$	$\geq 70\% = 1$
	$< 70\%$ or not stated = 0
Is the follow up duration ≥ 5 years	≥ 5 years = 1
	< 5 years = 0
Is the follow up rate 70% or more of the participants at baseline	$\geq 70\% = 1$
	$< 70\%$ or not stated = 0
Are drop outs comparable with follow-up participants	Drop outs are comparable = 1
	Drop outs not comparable = 0
Was the validity of the measure assessing physical activity reported	Validity of physical activity measure reported (or can be reasonably acquired externally) = 1
	Validity of physical activity measure not reported = 0
Was the reliability of the measure assessing physical activity reported	Reliability of physical activity measure reported (or can be acquired externally) = 1
	Reliability of physical activity measure not reported = 0
Was the validity of the measure assessing	Validity of cognitive decline/dementia

cognitive decline/dementia reported and was it reported to be adequate	measure reported (or can be acquired externally) = 1
	Reliability of cognitive decline/dementia measure not reported = 0
Was the reliability of the measure assessing cognitive decline/dementia reported	Validity of cognitive decline/dementia measure reported (or can be acquired externally) = 1
	Reliability of cognitive decline/dementia measure not reported = 0
Does the sample consist of ≥ 1000 participants	The sample consists of ≥ 1000 participants = 1
	The sample consists of < 1000 participants = 0
Are confounders accounted for in the analyses (where appropriate)	Confounders (age, sex, education) accounted for in the analyses = 1
	Confounders (age, sex, education) not accounted for in the analyses = 0