Table F.1.h. People with attention deficit hyperactivity disorder (ADHD), relationship between physical activity and health-related outcomes

Questions: What is the association between **physical activity** and health-related outcomes?
Population: People with attention deficit hyperactivity disorder (ADHD)
Exposure: Greater volume, duration, frequency, or intensity of physical activity
Comparison: No physical activity or lesser volume, duration, frequency, or intensity of physical activity
Outcome: Cognitive function

Outcome	Systematic review evidence Review credibility	No. of studies/ Study design No. of participants	Quality Assessment					Summary of findings	Certainty	US PAGAC evidence *(39)*
			Risk of bias	Inconsistency	Indirectness †	Imprecision	Other			
Cognitive function	Ashdown-Franks 2019[a, d] *(2)* Moderate	1 ESR (5 RCTs, N=NR)	NA[b]					One low credibility review of 5 RCTs found evidence to suggest that exercise is more effective than usual are or education in children (mean age 11 years) on measures of attention (SMD = 0.84 [95% CI, 0.48 to 1.20], trials NR) and executive function (SMD = 0.58 [95% CI, 0.15 to 1.00], 3 trials, n=102), and social disorders (SMD =0.59 [95% CI 0.03 to 1.16], 2 RCTs, n=53).	LOW[c]	2 ESRs Moderate evidence indicates that moderate-to-vigorous physical activity can have beneficial effects on cognition in individuals with diseases or disorders that impair cognitive function, including attention deficit hyperactivity disorder, schizophrenia, multiple sclerosis, Parkinson's disease, and stroke. **PAGAC Grade: Moderate.**

Abbreviations: ESR = existing systematic review; NR = not reported; PAGAC = Physical Activity Guidelines Advisory Committee; RCT = randomized clinical trial; QOL = quality of life

† Serious indirectness indicates measurement of intermediate/indirect outcomes or heterogeneity in exposures and comparisons assessed; certainty of evidence was not always downgraded for indirectness if it was not judged to impact the certainty in the findings for the outcome evaluated in the review

[a] Review-of-reviews
[b] Not able to assign given review-of-review methodology
[c] Certainty of evidence downgraded given small number of trials and unknown risk of bias, consistency, and precision
[d] Two additional reviews *(7 Suarez-Manzano, 2018 #113)* were identified but were rated as critically low credibility and are not included