

**Table F.1.g. People with schizophrenia, relationship between physical activity and health-related outcomes**

**Questions:** What is the association between **physical activity** and health-related outcomes?

**Population:** People with schizophrenia

**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, health-related QOL

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			
<b>Cognitive function</b>	Firth 2017 <sup>f</sup> (13) Low	10 RCTs N=455	No serious risk of bias	No serious inconsistency	Serious indirectness	No serious imprecision	Evidence of a dose-response relationship	<p>Mean age of participants was 37.3 years (range 23-55 years). Ninety-two percent had schizophrenia/schizoaffective disorder and 7.9% had other nonaffective psychotic disorders and mean duration of illness was 13.4 years. About half (56%) of the total sample was male. Exercise programs were, on average, 12.2 weeks long and primarily focused on aerobic exercise.</p> <p>Exercise was statistically significant associated with improved global cognition (Hedge's g = 0.33 [95% CI, 0.13 to 0.53], p=0.001), working memory, social cognition, and attention/vigilance but there was no effect on processing speed, verbal memory, visual memory, reasoning, and problem solving.</p>	HIGH <sup>g</sup>	<p><a href="#">1 ESR</a></p> <p>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, <u>schizophrenia</u>, multiple sclerosis, Parkinson's disease, and stroke. <b>PAGAC Grade: Moderate.</b></p>
<b>Health-related QOL</b>	Stubbs 2018 <sup>a</sup> (31) Moderate	1 ESR (3 RCTs, N=NR)	NA <sup>b</sup>					<p>Two RCTs, which both used 120 min of MVPA per week, reported significant improvements in QOL and disability, whilst 1 RCT of lower intensity did not lead to any significant results.</p>	LOW <sup>d, e</sup>	<p><a href="#">3 ESRs</a></p> <p>Moderate evidence indicates that physical activity improves quality of life in individuals with schizophrenia. <b>PAGAC Grade: Moderate.</b></p>

Abbreviations: ESR = existing systematic review; MVPA = moderate-to-vigorous physical activity; NA = not applicable; NR = not reported; PAGAC = Physical Activity Guidelines Advisory Committee; SMD = standardized mean difference; QOL = quality of life; RCT = randomized clinical trial

† 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

<sup>a</sup> Both Stubbs et al. 2018 and Ashdown-Franks et al. 2019 were review-of-reviews and included the same existing systematic review

<sup>b</sup> Not able to assign given review-of-review methodology

<sup>c</sup> Certainty of evidence downgraded given small number of RCTs and low credibility of review

<sup>d</sup> Stubbs 2018 (31) rated as -1 evidence (Meta-analyses, systematic reviews or RCTs with a high risk of bias)

<sup>e</sup> Certainty of evidence downgraded given small number of studies and sample size

<sup>f</sup> Review also included in review-of-reviews by Stubbs et al. 2018 (31) and Ashdown-Franks et al. 2019 (2)

<sup>g</sup> Certainty of evidence not downgraded