Table A.1.h. Prosocial behaviour and physical activity, children and adolescents

Questions: What is the association between **physical activity** and health-related outcomes? Is there a dose response association (volume, duration, frequency, intensity)? Does the association vary by type or domain of PA?
Population: Children aged 5-under 18 years of age
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: Prosocial behaviour (e.g., conduct problems, peer relations, social inclusion)
*__Importance__: IMPORTANT

Black font is from original GRADE Evidence Profiles from Australian 24-Hour Movement Guidelines for Children (5-12 years) and Young People (12-17 years).*(26)* Red font denotes additions based on WHO update using review of existing systematic reviews.

	Quality Assessment							
No. of studies/ Study design **No. of participants**	**Risk of bias**	**Inconsistency**	**Indirectness**	**Imprecision**	**Other**	**Summary of findings**	**Certainty**	**US PAGAC evidence *(27)***
The range of mean age was 6.0 to 11.15 years; data were collected by RCT, non-randomized intervention trials, cross-sectionally and up to 4 years of follow-up. Prosocial behaviour conduct problems and peer problems were assessed via the Strengths and Difficulties Questionnaire, Effort and time on task were assessed via the Classroom Behaviour and Assets Scale, Social acceptance was assessed via Harter's Self-perception Profile for Children and time in play and social skills were assessed via The Social Skills Improvement System Rating Scale and The Pictorial Scale of Perceived Competence and Social Acceptance for Young Children. All outcomes were measured objectively.								
1 RCT[a] n=226 **No eligible reviews identified.**	Serious risk of bias	Unable to assess	No serious indirect-ness	No serious imprecision	None	There was no effect of MVPA on time in play and social skills (Bundy et al. 2017).	LOW[f]	Outcome not included
1 NRT[b] n=1,322 **No eligible reviews identified.**	Serious risk of bias	Unable to assess	No serious indirect-ness	No serious imprecision	None	There were positive effects of MVPA on effort and time on task (Carlson et al. 2015)	VERY LOW[g]	
1 Longitudinal [c] n=7,704 **No eligible reviews identified.**	Serious risk of bias	Unable to assess	No serious indirect-ness	No serious imprecision	None	PA associated with fewer peer problems. MVPA– unfavourable association with conduct hyperactivity problems (boys & girls) & conduct problems (boys only) (Ahn et al. 2018)	VERY LOW[h]	

1 Cross-sectional[d] n=652 **No eligible reviews identified.**	Serious risk of bias[e]	Unable to assess	No serious indirect-ness	No serious imprecision	None	There was no association between *total PA* and **prosocial behaviour**, **peer problems**, **social acceptance** or **conduct problems** for boys or girls (Sebire et al. 2011). *MVPA* was favourably correlated with **peer problems** and **social acceptance** (in boys, not girls). *MVPA* was favourably associated with **prosocial behaviour** (in girls, not boys). *MVPA* was not associated with **conduct problems** in boys or girls.	VERY LOW[i]	

Abbreviations: MVPA = moderate-to-vigorous physical activity; PA = physical activity

[*] As determined by WHO
[a] Includes **1 RCT study** (Bundy et al. 2017)
[b] Includes **1 NRT study** (Carlson et al. 2015)
[c] Includes **1 longitudinal study** (Ahn et al. 2018)
[d] Includes **1 cross-sectional study** (Sebire et al. 2011).
[e] Serious risk of bias. Complete data for only 66% of participants; no indication that data were missing at random. Internal consistency of the scales was questionable (alpha = 0.60 to 0.66).
[f] The quality of evidence from this RCT was downgraded from "high" to "low" due to a serious risk of bias that diminished the level of confidence in the observed effects and because inconsistency could not be assessed (1 study).
[g] The quality of evidence from this NRT was downgraded from "low" to "very low" due to a serious risk of bias that diminished the level of confidence in the observed effects and because inconsistency could not be assessed (1 study).
[h] The quality of evidence from this longitudinal study could not be upgraded from "low" to "moderate" due to serious risk of bias that diminished the level of confidence in the observed effects and was downgraded from "low" to "very low" because inconsistency could not be assessed (1 study).
[i] The quality of evidence from this cross-sectional study was downgraded from "low" to "very low" due to a serious risk of bias that diminished the level of confidence in the observed effects and because inconsistency could not be assessed (1 study).