Table S1 Search strategy.

|  |  |  |
| --- | --- | --- |
| **Category** | **Keywords** | **MeSH**a |
| Population | (children OR adolescents) | (Child [Mesh] OR Adolescent [Mesh]) |
| Outcome | (depression OR depressive disorder OR depressive symptoms) | (Depression [Mesh] OR Depressive Disorder [Mesh]) |
| Intervention | ((physical activity OR physical exercise) OR (exercise OR sports)) | (Exercise [Mesh] OR Sports [Mesh]) |
| Study design | ((Randomized Controlled Trial OR controlled clinical trial OR longitudinal) | (Randomized Controlled Trial [Publication Type] OR Controlled Clinical Trial [Publication Type]) |

Table S2 Excluded studies and reasons.

|  |  |
| --- | --- |
| **Study** | **Reason for exclusion** |
| Ahn and Fedewa (2011) | Not relevant study design |
| Bailey et al. (2018) | Wrong group of age |
| Bursnall (2014) | No meta-analysis |
| Cairns et al. (2014) | Not relevant study design |
| Calfas and Taylor (1994) | Not relevant study design |
| Craft and Landers (1998) | Wrong group of age |
| Dolle and Schulte-Körne (2014) | Not focused on the topic |
| Fabricatore et al. (2011) | Not focused on the topic |
| Huang et al. (2018) | Wrong group of age and not focused on exercise |
| Korczak et al. (2017) | Not relevant study design and no interventions |
| Krogh et al. (2017) | Wrong group of age |
| Kvam et al. (2016) | Wrong group of age |
| Liu et al. (2015) | Wrong group of age |
| Mala et al. (2012) | Wrong group of age |
| North et al. (1990) | Wrong group of age and not relevant study design |
| Pascoe and Parker (2019) | No meta-analysis |
| Rodriguez-Ayllon et al. (2019) | Not focused on the topic and non-relevant designs included |
| Shore et al. (2017) | Not focused on the topic |
| Yan et al. (2016) | Wrong group of age |

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Table S3 AMSTAR 2 rating results.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study** | **Researcher 1** | **Researcher 2** | **Researcher 3** | **Final score** |
| Larun et al. (2006) | Moderate quality | Moderate quality | Moderate quality | Moderate quality |
| Brown et al. (2013) | Moderate quality | Moderate quality | Moderate quality | Moderate quality |
| Carter et al. (2016) | Moderate quality | Moderate quality | Moderate quality | Moderate quality |
| Radovic et al. (2017) | Low quality | Low quality | Critically low quality | Low quality |

Figure S1 Funnel plot.

