Title:
Health-enhancing physical activity interventions for children and young people with neuro-disabilities: A Systematic Review Protocol

Introduction:
Regular participation in health-enhancing physical activity (HEPA) by children and young people (CYP) prevents illness and promotes health and well-being. CYP with neuro-disabilities (disability resulting from damage to the nervous-system and its development) have fewer opportunities to participate in HEPA. Enabling their participation is therefore a public health priority. Healthcare professionals e.g. physiotherapists and occupational therapists play a role in promoting HEPA participation, yet barriers exist to this role within daily practice. Additionally, therapy interventions have traditionally focused on reducing motor impairments and modifying the environment to increase HEPA participation, with little established evidence to support causal links. Coproduction and innovation is required from multiple stakeholders to produce effective and sustainable HEPA participation interventions. The objectives of this systematic review are therefore to: Identify HEPA participation interventions for CYP with neuro-disabilities; Identify intervention core components, active ingredients, mechanisms and outcomes.

Methods:
Web-site searches will identify current policy and services in the United Kingdom (UK) for increasing HEPA participation in CYP with neuro-disability (aged 4-18 years). Allied and Complimentary Medicine (AMED), MEDLINE, MEDLINE in Process, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Excerpta Medica database (EMBASE), PEDro and Scopus databases will be searched for papers published from 2001 onward. In addition, study reference lists will be checked and citations tracked for included studies.

Analysis/Results:
Studies that meet evidence levels 1 – 3 (Sackett, 1989) and have HEPA participation interventions incorporating interaction and engagement with peers in the community, will be included. Study quality assessment will be done using the Critical Appraisal Skills Programme (CASP) (2017). Quality assessment and data extraction will be conducted by one reviewer and checked by a second.

Discussion/Conclusions:
A comprehensive overview of current evidence regarding HEPA participation interventions and outcomes for CYP with neuro-disabilities will be provided. Specific details regarding types of interventions, environments, theoretical concepts and practical mechanisms and outcomes will be analysed and synthesised. Conclusions will inform qualitative research, including all stakeholders, aimed at eliciting meaningful solutions to increase HEPA participation for CYP with neuro-disabilities.