

Theme: Essential Rehabilitation

Physiotherapeutic Interventions in Child and Adolescent Mental Health Services: The evidence for who, what and why.

Background

Childhood and adolescent onset mental health disorders have been shown to have long-term physical and mental health implications. Therefore, early identification of patients at risk for developing mental and physical co-/multi-morbidities as well as appropriate multidisciplinary management strategies, including physiotherapy, is vital to improve health outcomes and quality of life in this population. The primary aim of these systematic reviews was to clarify the evidence base available around the application of physiotherapeutic interventions within a child and adolescent mental health services(CAMHS) population. With secondary aims to identify and explore efficacy of specific physiotherapeutic interventions applied in the management of physical and mental health of this population, and to identify any reported benefits of physiotherapeutic care for children and young people(CYP) who present with severe, complex and enduring emotional, behavioural or mental health difficulties.

Methods

A systematic review of the evidence was conducted including studies that evaluated physiotherapeutic interventions in CYP aged 5–18 years, who had a diagnosis consistent with ICD-11 criteria for referral to CAMHS, to manage their physical or mental health. Due to the volume of published studies the review was divided into 2 distinct systematic reviews based on either a diagnosis consistent with severe and enduring mental health difficulty(SEMD) or a neurodevelopmental disorder(NDD).

Results

The 20 included studies (SEMD n= 9, NDD n=11) were generally of low quality. Meta-analysis of data demonstrated a significant total effect favouring physiotherapeutic intervention for improving postural stability in children and young people with Developmental Coordination Disorder(DCD) (WMD 3.68 [95% CI 1.78, 5.57]; p=0.0001). Additionally, children with DCD, as well as Autism, Attention deficit Hyperactivity Disorder, Dyslexia and Intellectual Disabilities were found to see improvements in motor proficiency; muscle activation and force development; self-concept, participation and function; behaviour; respiratory function; and gait from primarily exercise or functional movement interventions, but also manual therapy and taping interventions. Children with SEMD, including Eating Disorders, Functional Neurological Disorders, Substance Use Disorders and Anxiety Disorders, were found to see positive improvement in body composition, sleep, depressed and anxious affect and behaviour, respiratory function, physical function, and mobility from primarily exercise-based interventions, but also acupuncture, mobility focused interventions, and psychologically informed interventions.

Discussion and Clinical Implications

For CYP with severe emotional, mental and behavioural difficulties, physiotherapeutic interventions can be applied to improve a variety of mental health, physical health, and motor outcomes, however the majority of evidence to support this is of low quality.

Clinical implications from these systematic reviews and meta-analyses highlight that:

- Definitive recommendations for physiotherapists working with CYP presenting to CAMHS with SEMD or NDD are not possible due to the limited number of low-quality studies; however, emerging evidence is presented in these reviews.
- If physiotherapeutic interventions are included in patient management they should centre around exercise or physical activity approaches to manage the physical health, mental health, and motor outcomes of CYP, however could be supplemented with additional interventions within the scope of practice of the physiotherapist.
- More high-quality evidence is needed to explore the full scope of physiotherapeutic involvement within CAMHS services, specifically within UK populations.