



Supporting movement skills to improve health and education in the population

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Six to 17% of children have a hidden physical disability (movement skill deficit) that impedes their progress in school (e.g., resulting in handwriting problems). The COVID-19 pandemic has worsened the situation, particularly in disadvantaged communities. Movement skill deficits decrease educational attainment and increase the risk of poor physical and mental health. We have developed free assessment and treatment tools that allow these conditions to be effectively tackled in schools, reducing the burden to the NHS, but schools need to be empowered to use them.

There is a large number (6-17%) of children with movement skills deficit within UK classrooms^{1,2}. Their (hidden) physical disability inhibits them from engaging fully in education which means, without support, they are at elevated risk of poor educational attainment³. Movement skill deficits also increase the risk of long-term physical ill-health⁴ (e.g., obesity, diabetes and heart disease) and mental health problems⁵ (e.g., depression and anxiety), placing a large burden on the NHS and education services.

Our Born in Bradford⁶ research (involving 13,500+ children) showed that the COVID-19 pandemic decreased opportunities for children to acquire and develop essential movement skills, particularly in the most disadvantaged communities⁷. Our work also shows existing

support for movement skills deficits is inefficient, insufficient and places a large burden on health systems.

Movement skills are critically important for school success. Handwriting is a vehicle for learning, and fundamental movement skills are essential within the Early Years curriculum. Unfortunately, children's movement skills are not currently assessed, meaning many children are not having their educational needs supported. However, these deficits can be treated, thus reducing long-term costs to education and health services reduced. Empowering schools to identify and treat children with physical disability could improve educational outcomes and reduce the burden on our public services.



Movement skill tools

Our research has helped create movement skill assessment and treatment tools for schools. We have:

- Developed a free school-based screening tool (FUNMOVES®) to expedite the identification of hidden physical disability and reduce inequalities in the assessment pathway.
- Produced accessible guidance for teachers (The Alps) around evidence-based physiotherapy activities⁹ for schools to improve movement skills of children with these educational needs.
- Provided evidence-led training materials to upskill teachers.
- Developed integrated pathways of support by working with health and education policymakers to enable more seamless communication between providers.

Our key aims are to ensure these tools are made widely available to schools and educators, and to improve understanding of fundamental movement skills across the education sector.

Key findings

- Teachers have little knowledge about fundamental movement skills, despite inclusion of these on the Physical Education curriculum¹⁰.
- Teachers can be trained to identify children’s learning needs using our evidence-based freely available tools.
- School-based screening of fundamental movement skills can identify children who need additional support.
- School-based interventions of fundamental movement skills are highly effective¹¹ and schools are motivated to provide these interventions when the educational benefits have been explained and evidenced.
- Evidence-based activities to decrease disability can be accurately delivered in schools by teaching staff, reducing the burden on the NHS.

Policy implications

The evidence points to the following considerations for policy:

- Treating movement skill deficits in schools rather than healthcare settings (i.e., physiotherapy and occupational therapy) has the potential to reduce NHS pressures and improve educational attainment. This will require effective collaboration between the Department of Health and Social Care and Department for Education, to support schools to assess and treat physical disability.
- Early Years and Primary teacher training curricula should include content about movement skills, and how to assess and treat motor difficulties.
- Schools should be encouraged to screen children for movement difficulties, incentivised through the OFSTED

framework, and should be supported to provide treatment for physical difficulties such as handwriting and fundamental movement skill problems.

- A national online resource should be created where schools can download these evidence-based assessment and treatment tools, access training materials and obtain guidance on supporting physical disability within the classroom.

Further information

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