

Overview

Diabetes is one of the most common chronic childhood illnesses in the UK, affecting 1 in 250 children. A child with Type 1 diabetes (the most common form in childhood) must self-inject insulin regularly or use an insulin pump to keep their blood glucose within acceptable limits, depending on what they have eaten or their physical activity.

Academics at Cardiff University are seeking to understand the relationship between how childhood diabetes and diabetes management affect a child's experience of school. The link between diabetes developed in childhood and education is important because it relates to how well children do at school and what they will go on to achieve academically and into their future careers. The impact of living with diabetes will affect all aspects of a child's life, from family, friendships, and their self-esteem.

Our research found that children living with diabetes are more likely to miss school. Those facing challenges managing their diabetes missed 15 more sessions of school each year, had lower educational attainment and were also half as likely to attend university as children without diabetes.

Policy context

The Equality Act 2010¹ legally defines children with diabetes as being disabled. The NHS, local authorities and schools have responsibilities towards these children to ensure that they are not put at a disadvantage compared to other students, for example, schools must make reasonable adjustments so that children are given adequate time and space to manage their blood glucose levels and administer medication. Guidance to support local authorities in Wales to meet their duties is set out in regulations². The Additional Learning Needs Educational Tribunal (Wales) Act 2018³ makes provision for a new statutory framework supporting children and young people with additional learning needs (ALN). This replaces existing legislation surrounding special educational needs (SEN) and the assessment of children and young people with learning difficulties and disabilities (LDD) in post-16 education and training. The Act sets out how children and young people aged under 25 years with ALN should be supported in their education and training. It includes the introduction of a new statutory measure called Individual Development Plans (IDP) and provides the right to appeal for all children and their parents.

The Welsh Government's *Diabetes Delivery Plan for Wales 2016 to 2020*⁴ reinforces the commitment to giving all people in Wales with diabetes the best possible care and support. The Plan commits to early identification and intensive support for children and young people with Type 1 diabetes, stating that *"children living with diabetes should receive the best possible support and care in all environments including schools"*. It highlights that *"Educational settings need to be supported to train staff to support CYP with diabetes to avoid hypoglycaemic episodes and perform carbohydrate counting and administration of insulin for young children. Young people with diabetes must be supported to participate in all educational activities, including residential trips."*

¹ UK Government (2010) [Equality Act 2010](#), legislation.gov.uk website (accessed 17 October 2022).

² Welsh Government (2022) [The Equality Act 2010 \(Disabled School Pupils\) \(Wales\) Regulations 2021](#), Welsh Government website (accessed 17 October 2022).

³ Welsh Government (2022) [Additional Learning Needs Educational Tribunal \(Wales\) Act 2018](#), Welsh Government website (accessed 17 October 2022).

⁴ Welsh Government (2016) [Diabetes Delivery Plan for Wales 2016-2020](#), Cardiff: Welsh Government.

The relevant statutory guidance (*Supporting Learners with Healthcare Needs*⁵) ensures that “learners with healthcare needs should be properly supported so that they have full access to education, including trips and physical education and Governing bodies must ensure that arrangements are in place to support learners with healthcare needs”.

Research findings

Cardiff University in partnership with Diabetes UK, the Royal College of Paediatrics & Child Health (RCPCH), and NHS Digital completed an eight-year study into the educational outcomes for young people with Type 1 diabetes. The quantitative study identified and linked individuals from national diabetes audit datasets (National Paediatric Diabetes Audit and National Diabetes Audit) with schools and higher education data.

The research used a blood test to see the average blood glucose levels for the last two to three months (HbA1c levels). Children facing struggles managing their diabetes, as highlighted in these levels:

- Missed 15 more sessions of school each year than their peers without diabetes.
- Achieved five grades lower in school exams (GCSE) at 16 years of age than children without diabetes.
- Are less than half as likely to attend University compared to children without diabetes.

Despite these important differences, there are also positives to draw from the research which are important for how we address the health and education challenges for young people with diabetes. Firstly, despite increased school absence being an issue for all children with diabetes (regardless of their diabetes management), many children still perform well in their education (both at age 16 and university participation). Secondly, there was no difference in academic attainment at 16 years of age for children with diabetes who had been diagnosed recently compared with those diagnosed earlier in childhood. Both of these factors suggest that it is social factors which determine the link between diabetes and education, rather than biological mechanisms such as blood glucose affecting brain function.

Recommendations

- Schools, local authorities, and health services should work together to support both the child’s health needs and their education needs, particularly for children who were already struggling with their education prior to a diagnosis of diabetes, to avoid the double disadvantage of reduced health and education outcomes as the young person enter the transition to adulthood.
- Paediatric diabetes teams should be resourced to provide training and support to schools to ensure that school staff have the skills and confidence they need to support children.
- Local authorities should support schools which do not have a sufficient ‘Medical Conditions Policy’ to make this available and ensure they are updated annually.
- Estyn should evaluate how effectively schools and educational settings are implementing the statutory guidance as part of their inspection process.
- Schools need to ensure that there are sufficient numbers of fully trained staff to support children to manage their diabetes, including for periods of staff illness and school trips.
- Local authorities should support schools to ensure that every child with diabetes has an individual healthcare plan, which details exactly what their needs are and who will help them.
- Schools must ensure that every child with diabetes is fully supported to manage their condition in public or private spaces within the school, depending on their wishes.

⁵ Welsh Government (2017) [Supporting Learners with Healthcare Needs](#), Cardiff: Welsh Government.