Does physical activity and fitness influence glycaemic control and insulin requirement in children and adolescents with Type 1 diabetes?

Key Words: Children and Young People; diabetes; exercise

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Abstract

This project explores whether physical activity and physical fitness influence how well a child or young person’s diabetes is controlled. The project has been funded by Diabetes UK and contains two main elements.

Firstly Phase 1 entailed researching physical activity and fitness levels in 60 children and young people with diabetes and in 37 controls. Phase 1 was completed during 2012 and published Diabetic Medicine 2013. The main finding was that moderate-to-vigorous physical activity was associated with improved diabetes control. This supports promoting the national recommendations encouraging CYP to participate in more physical activity, as this could help improve diabetes control thus minimising long term complications. However, it was also found that those with diabetes and those without diabetes both had similarly low physical activity levels below national recommendations. This underlines the importance of Phase 2 of the project.

Phase 2 involves this BRU application. It entailed inviting 20 participants back to focus groups (x4) to explore their thoughts and views on diabetes, exercise and hypoglycaemia. A research nurse and research psychologist conducted the focus groups which have all be completed. Qualitative analysis of the findings is now important in order to identify common themes that may be barriers to more activity. This will be undertaken with advice from Eileen Sutton.