Variables in Diabetic Children and Adolescents associated with High, Acceptable and Low range of Glycosylated Haemoglobin (HbA1c) in a DGH setting – An Analysis
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**Background:** Diabetes Education empowers children and adolescents with Diabetes to acquire practical skills in problem-solving and goal-setting to improve self sufficiency. Our aim was to identify variables that have an impact on diabetes control in terms of psychosocial wellbeing and glycosylated haemoglobin (HbA1c).

**Objectives and hypotheses:** To compare the level of understanding & knowledge of Diabetes between three groups of diabetic children. To explore psychosocial variables that distinguish the three groups.

**Method:** Retrospective analysis of HbA1c and the variables in the Patient’s Diabetes Education Assessment Questionnaire (adapted from the East of England Paediatric Diabetic Network guidelines) over a one year period from Sep 2013 and August 2014. 30 children were randomly chosen in each group. High HbA1c group (Group A): Range 9-14%, mean 9.6%. Acceptable HbA1c Group (Group B): Range 5.7-8.8, mean 7.4%. HbA1c less than 7.5% (Group C): Range 5.7-7.4%, mean 7.2%

**Results:** General knowledge about Diabetes, Injection rotation, Hypoglycemia and Hyperglycemia was 10 - 15% greater in Group C than other two groups. Group C’s knowledge on exercise was at least 2 times greater than the other groups. Group C also had good understanding of Diabetes. Knowledge about HbA1c was greatest (73%) and blood glucose monitoring (66%) in Group B. In spite of a good overall knowledge, Group B topped Group C in psycho social adjustment in terms of accepting the diagnosis better, involving friends in their care and being happy (40%). Knowledge about complications was similar in all age groups (13%)

**Conclusions:** The children in group C appear to have good diabetes control secondary to being empowered by general knowledge about diabetes, hypo and hyperglycaemia. An important factor in good diabetes control is exercise. Group A contains children who are at the age where they are more likely to have knowledge about alcohol, a confounding variable. The role of psychosocial variables appear to be important in Group B despite acceptable HbA1c levels.

**References**
- East of England Children’s Diabetes network guidelines - NEWLY DIAGNOSED TYPE 1 DIABETES CARE PATHWAY FOR CHILDREN & YOUNG PEOPLE (UP TO 19TH BIRTHDAY)
- Association of Children’s Diabetes (ACDC) - Care of the well child, newly diagnosed with Type 1 Diabetes Mellitus

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