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Title of project: Identifying problems upstream: An psychosocial innovative prospective study to build a model to predict future glycaemic control

ABSTRACT

A large European multi-country study published in 2018 showed that the majority of children and adolescents with type 1 diabetes (T1D) do not achieve the ISPAD treatment goal of an HbA_{1c} of less than 58 mmol/mol (<7.5%), and 62 % of the Danish childhood T1D population was above this goal. Psychological/psychiatric problems are common in T1D and can seriously obstruct adequate diabetes self-management and thus impair glycaemic control. Yet, our knowledge in this area is still limited. We have previously assessed and described psychosocial function and HbA_{1c} of the whole Danish diabetes population between 2 and 17 years and their parents (n=1050). No national long-term follow up studies on the effect of early psychosocial problems on later glycaemic control, T1D complications and psychological /psychiatric problems exist. For this purpose, we will add a 10-year follow up assessment to a large Danish cohort of T1D children and their parents.

The main goal of the proposed study is to determine whether it is possible to use baseline HbA_{1c}, treatment adherence, psychological functioning, family functioning, and socio-economic status of T1D children and their parents to predict their future glycaemic control, body mass index standard deviation score (BMISDS), acute and late T1D complications and psychological/psychiatric problems.

The study will, due to the volume of participants, have the strength to reveal which modifiable variables (somatic, psychosocial and socio-economic status) predict important clinical outcomes (glycaemic control, somatic and psychological/psychiatric wellbeing) during the adolescent and young adulthood period. This information can be used to construct interventions that can help health care providers and health policy makers with tools to build new early interventions, to keep glycaemic control and social-emotional wellbeing in the healthy.