

Food Security and Glycemic Control in Patients with Type 1 Diabetes

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ABSTRACT

Type 1 Diabetes (T1D) is an autoimmune disease where the body does not produce insulin. Insulin is a hormone needed to control blood glucose levels. While there is no cure, research shows we may improve glycemic control in individuals with T1D through a balanced diet including fruits, vegetables and an adequate intake of carbohydrates. Food security is defined as, access to enough adequately nutritious foods to promote an “active, healthy life.” Food insecurity occurs when there is uncertain availability of affordable, nutritious food.

Most research on food security and diabetes has focused on the Type 2 Diabetes population. We are therefore proposing a more novel topical focus on T1D, with these research questions; what proportion of T1D patients seen at the USF Diabetes and Endocrinology Center have experienced food insecurity in the last twelve months? Is there a significant difference in glycemic control (measured by Hemoglobin A1C [HbA1c]) between T1D patients living in food secure versus food insecure households?

To examine the research questions, we are using the USDA Household Food Security Survey Module (18 item). We built the survey in RedCap and will distribute it to all USF T1D patients via email. Surveys will be scored to determine household food security status. Descriptive statistics will be used to define the T1D patient population.

These data will inform quality improvement projects to be implemented by the USF clinic team, to tailor nutrition and dietary education to patients’ means and connect T1D patients with community resources to address food insecurity.

Key Words: Type 1 Diabetes, glycemic control, food insecurity

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