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17TH ANNUAL CHILD HEALTH RESEARCH DAYS

# Nutrition for a Changing World

The Science of Nourishing the Next Generation

## CHRD 2021: Abstract & Poster Submission Form

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### Research Category:

- Basic Science
- Clinical
- Community Health / Policy

### What was your role in the project?

- Design
- Perform Experiments
- Analyze Data
- Write Abstract

### Presenter Status:

- Undergraduate Students
- Masters Student
- PhD Student
- Post-Doctoral Fellows
- Residents
- Non-Trainee

**Title**

Predictors of Quality of Life in Youth Living with Type 2 Diabetes

**Background**

The prevalence of Type 2 diabetes (T2D) is increasing in youth (<18 years). The biopsychosocial effects of T2D on Quality of Life (QOL) is understudied.

**Objective**

We hypothesized that QOL is lower among youth with T2D, compared to peers without T2D, and decreased QOL is associated with biopsychosocial stressors.

**Methods**

Data from the Improving Renal Complications in Adolescents with T2D through Research (iCARE) study was used to test these hypotheses. The main outcome was QOL determined from the Pediatric QOL Inventory™ (PedsQL). Social factors included food security (Household Food security survey module), and income quintile. Psychological factors included perceived stress (PSS-14) and mental distress (K-6 scale). Biological factors included: age, sex, BMI, HbA1C, eGFR and ACR. Linear regression analyses were used to identify biopsychosocial factors associated with QOL between youth with and without T2D, and within the T2D cohort

**Results**

QOL was assessed in 331 youth with T2D and 137 without T2D. Mean age (14.96 vs 14.93 yrs), male sex (35 vs 43.8 %), BMI z scores (2.54 vs 2.10) and Indigenous ethnicity (81.2 vs 89.1 %) were similar between the groups. Mean duration of diabetes was 2.3± 2.0 yrs. Youth with T2D had significantly lower PedsQL scores (67.01 ± 14.75) compared to controls (71.71 ±16.15, p=0.039), but significance was lost in multivariate analyses. For youth with T2D, mental distress ( $\beta = -1.43$ ;  $P<0.01$ ) and food insecurity ( $\beta = -6.26$ ;  $p=0.037$ ) were associated with decreased QOL.

**Conclusion**

Differences in QOL were univariately significant between youth with T2D and those without, however this attenuated in the multivariate model. Significant predictors of decreased QoL included mental distress and food insecurity, suggesting areas for further support for these youth.

## Authors

- For each author, please click "[+] Add Item" and provide the author's information

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