

Health-Related Social Needs and Diet Quality in Youth and Young Adults with Youth-Onset Type 1 Diabetes: Cross-Sectional Findings From the SEARCH Food Security Cohort Study

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Objectives: This cross-sectional study from the SEARCH Food Security Cohort Study (2018–2020) examined the association between unmet health-related social needs (USN) and diet quality among 821 youth and young adults (YYA) with type 1 diabetes (T1D).

Methods: Daily dietary intake of calcium, dairy, fiber, and fruits and vegetables (F/V) was estimated with the National Cancer Institute dietary screener questionnaire. USN included having one or more of the following: ≥ 3 affirmations on the USDA Household Food Security Survey Module, not having a personal vehicle in the past year, reporting housing instability over the past 90 days, or reporting health care costs as a big problem. Quantile regression examined associations between the

count of USN and diet, and associations between specific social needs and diet, controlling for the presence of the other three needs.

Results: For YYA with T1D (mean age: 22.6 ± 5), 36.9% had 1 + USN, with healthcare unaffordability most prevalent (24.6%), followed by food insecurity (17.5%). Overall diet quality was poor with estimated intakes below dietary guideline recommendations, especially for fiber. Consumption for all nutrients and F/V was lower across the intake distribution among those with 1 + USN, compared to no unmet needs. After adjustment, those with 1 + USN consumed significantly less calcium at the 10th and 25th percentiles ($P < 0.05$), fiber at the 25th and 50th percentiles ($P < 0.05$), and F/V at the 25th percentile ($P = 0.02$), compared to no unmet needs. For housing instability, unreliable transportation, and unaffordable healthcare, no diet quality indicator differed after further controlling for the presence of the other three needs. Independent of the other social needs, food insecurity was associated with lower fiber intake at the 10th, 25th, and 50th percentiles ($P < 0.04$), and F/V intake at the 50th and 75th percentiles ($P < 0.01$).

Conclusions: USN were associated with reduced intake of calcium, fiber, and F/V largely due to food insecurity, particularly among participants with lower intake. USN, arising from economic strain, is associated with poorer nutrition.

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