

Poster #26

Research Study

Title: “The Association between Social Determinants of Health and Self-Reported Diabetic Retinopathy: An Exploratory Analysis”

Emily L. Silverberg; Trevor W. Sterling; Tyler H. Williams; Grettel Castro, MPH; Pura Rodriguez de la Vega, MPH; and Noël C. Barengo, MD, PhD, MPH

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Introduction and Objective. One-third of Americans with diabetes will develop diabetic retinopathy (DR), the leading cause of blindness in working-age Americans. Social determinants of health (SDOH) are conditions in a person’s environment, not including health care, that may impact health. The relationship between ethnicity and race and the prevalence of DR is well documented throughout the literature but is not necessarily discussed in a social context. In addition, other SDOH relationships to DR, such as the built environment and various social aspects, are not as thoroughly reported in the American population. The objective of this study was to determine whether there is an association between various SDOH and DR in patients with type II diabetes.

Methods. This cross-sectional study used data from the 2018 Behavioral Risk Factor Surveillance System (BRFSS). This study included people with self-reported diabetes in the US in 2018 (n = 60,703). Participants with missing or incomplete responses relevant to the study’s variables were excluded. The exposure variables included homeownership (rent vs own), marital status, income, health care coverage, completed level of education, and urban vs rural environment. The outcome variable was self-reported DR. Unadjusted and adjusted logistic regression analysis were applied to calculate odds ratios (ORs) and their corresponding 95% confidence intervals (CIs)

Results. A total of 14,810 participants with DR were included in the final analysis. Alaskan Native/Native American (OR 2.11; 95% CI: 1.14–3.90), out of work (OR 2.82; 95% CI: 1.62–4.92), unable to work (OR 2.14; 95% CI: 1.57–2.91), did not graduate high school (OR 1.91; 95% CI: 1.30–2.79), only graduated high school (OR 1.43; 95% CI 1.08–1.97), or only attended college or technical school without graduating (OR 1.42; 95% CI: 1.09–1.86) were statistically significantly associated with DR in patients with diabetes.

Conclusions-Implications. By identifying specific SDOH with each patient and incorporating this holistic approach as a standard of care, patients diagnosed with Type II Diabetes could benefit from early detection and surveillance of DR. Future studies should be conducted to obtain a better understanding of why certain SDOH are associated with DR.