

Abstract

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Mechanisms for racial and ethnic disparities in glycemic control in middle-aged and older Americans in the health and retirement study.

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BACKGROUND: Mechanisms for racial/ethnic disparities in glycemic control are poorly understood.

METHODS: A nationally representative sample of 1901 respondents 55 years or older with diabetes mellitus completed a mailed survey in 2003; 1233 respondents completed valid at-home hemoglobin A(1c) (HbA(1c)) kits. We constructed multivariate regression models with survey weights to examine racial/ethnic differences in HbA(1c) control and to explore the association of HbA(1c) level with sociodemographic and clinical factors, access to and quality of diabetes health care, and self-management behaviors and attitudes.

RESULTS: There were no significant racial/ethnic differences in HbA(1c) levels in respondents not taking antihyperglycemic medications. In 1034 respondents taking medications, the mean HbA(1c) value (expressed as percentage of total hemoglobin) was 8.07% in black respondents and 8.14% in Latino respondents compared with 7.22% in white respondents ($P < .001$). Black respondents had worse medication adherence than white respondents, and Latino respondents had more diabetes-specific emotional distress ($P < .001$). Adjusting for hypothesized mechanisms accounted for 14.0% of the higher HbA(1c) levels in black respondents and 19.0% in Latinos, with the full model explaining 22.0% of the variance. Besides black and Latino ethnicity, only insulin use ($P < .001$), age younger than 65 years ($P = .007$), longer diabetes duration ($P = .004$), and lower self-reported medication adherence ($P = .04$) were independently associated with higher HbA(1c) levels.

CONCLUSIONS: Latino and African American respondents had worse glycemic control than white respondents. Socioeconomic, clinical, health care, and self-management measures explained approximately a fifth of the HbA(1c) differences. One potentially modifiable factor for which there were racial disparities--medication adherence--was among the most significant independent predictors of glycemic control.

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