

Title: The Relationship Between Knowledge of Recent HbA1c Values and Diabetes Care Understanding and Self-Management

Authors:

- Michele Heisler, MD
- John D. Piette, PHD
- Michael Spencer, PHD
- Edie Kieffer, PHD
- Sandeep Vijan, MD

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Abstract

OBJECTIVE: Knowledge of one's actual and target health outcomes (such as HbA1c values) is hypothesized to be a prerequisite for effective patient involvement in managing chronic diseases such as diabetes. We examined 1) the frequency and correlates of knowing one's most recent HbA1c test result and 2) whether knowing one's HbA1c value is associated with a more accurate assessment of diabetes control and better diabetes self-care understanding, self-efficacy, and behaviors related to glycemic control.

RESEARCH DESIGN AND METHODS: We conducted a cross-sectional survey of a sample of 686 U.S. adults with type 2 diabetes in five health systems who had HbA1c checked in the previous 6 months. Independent variables included patient characteristics, health care provider communication, and health system type. We examined bivariate and multivariate associations between each variable and the respondents' knowledge of their last HbA1c values and assessed whether knowledge of HbA1c was associated with key diabetes care attitudes and behaviors.

RESULTS: Of the respondents, 66% reported that they did not know their last HbA1c value and only 25% accurately reported that value. In multivariate analyses, more years of formal education and high evaluations of provider thoroughness of communication were independently associated with HbA1c knowledge. Respondents who knew their last HbA1c value had higher odds of accurately assessing their diabetes control (adjusted odds ratio 1.59, 95% CI 1.05–2.42) and better reported understanding of their diabetes care ($P = 0.001$). HbA1c knowledge was not associated with respondents' diabetes care self-efficacy or reported self-management behaviors.

CONCLUSIONS: Respondents who knew their HbA1c values reported better diabetes care understanding and assessment of their glycemic control than those who did not. Knowledge of one's HbA1c level alone, however, was not sufficient to translate increased understanding of diabetes care into the increased confidence and motivation necessary to improve patients' diabetes self-management. Strategies to provide information to patients must be combined with other behavioral strategies to motivate and help patients effectively manage their diabetes.