

## Patient-Reported Barriers and Limitations to Attending Diabetes Group Visits.

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# Patient-Reported Barriers and Limitations to Attending Diabetes Group Visits

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## Abstract

**Purpose:** Through this exploratory study, we sought to understand why group visit participation is low among adult patients with type 2 diabetes. **Methods:** Eligible study participants included adult patients with type 2 diabetes. After a pilot survey was sent to a random sample of 48 patients, the remaining 187 eligible patients were invited to complete a revised version of the survey. **Results:** Most frequently cited reasons for not attending group visits included diabetes under control, work and/or other responsibilities, and time barriers. There was variability in the desired time for the visits, though the majority of patients preferred evening visits. While some patients reported copays as a challenge, the likelihood of attending did not decrease for this subgroup. Most patients surveyed (54%) indicated interest in diabetes group visits. **Conclusion:** Implementing strategies to address the patient-identified system barriers (eg, time, transportation, and copays) may increase participation in diabetes group visits.

## Keywords

diabetes, group visits, group education, chronic disease management

Diabetes group visits provide opportunities outside of traditional office visits for patients to reinforce adherence to standards of care and improve self-management.<sup>1</sup> Prior studies of group visits have demonstrated improvement in patient satisfaction and key diabetes parameters, including hemoglobin A1c, lipid profiles, and blood pressure control.<sup>2</sup> Group visits also promote lifestyle changes and increased adherence to diabetes medications, which consequently decreases hospitalizations and cost of care.<sup>3</sup> Yet, despite these benefits, many patients do not participate in group visits when given an opportunity. Endorsement from the patient's clinician has been shown to be a motivator for attendance,<sup>4</sup> although the barriers to attending are less clear. In this exploratory study, we aim to delineate the experiences and attitudes about diabetes group visits by surveying adults with type 2 diabetes to understand the motivators, concerns, and barriers to attendance.

## Methods

The study team created a registry of all autonomous adult patients with type 2 diabetes from a hospital-owned, suburban family medicine practice in eastern Pennsylvania. An initial pilot survey, sent to the first 50 patients on the registry obtained from the practice, explored barriers to group visit attendance. It was restructured for clarification, readability,

and results reliability, and mailed to a convenience sample of the remaining 187 patients on the registry; 48 patients (25.7%) returned completed surveys. In addition to the survey, an introductory letter containing a description of group visits was included in the mailing. Demographic data were solicited from all participants; survey responses were summarized with counts/percentages for nominal and ordinal data, and means/standard deviations for continuous data. Calculations of likelihood ratios were based on selected barriers to attendance. This project was approved as exempt by our organization's institutional review board.

## Results

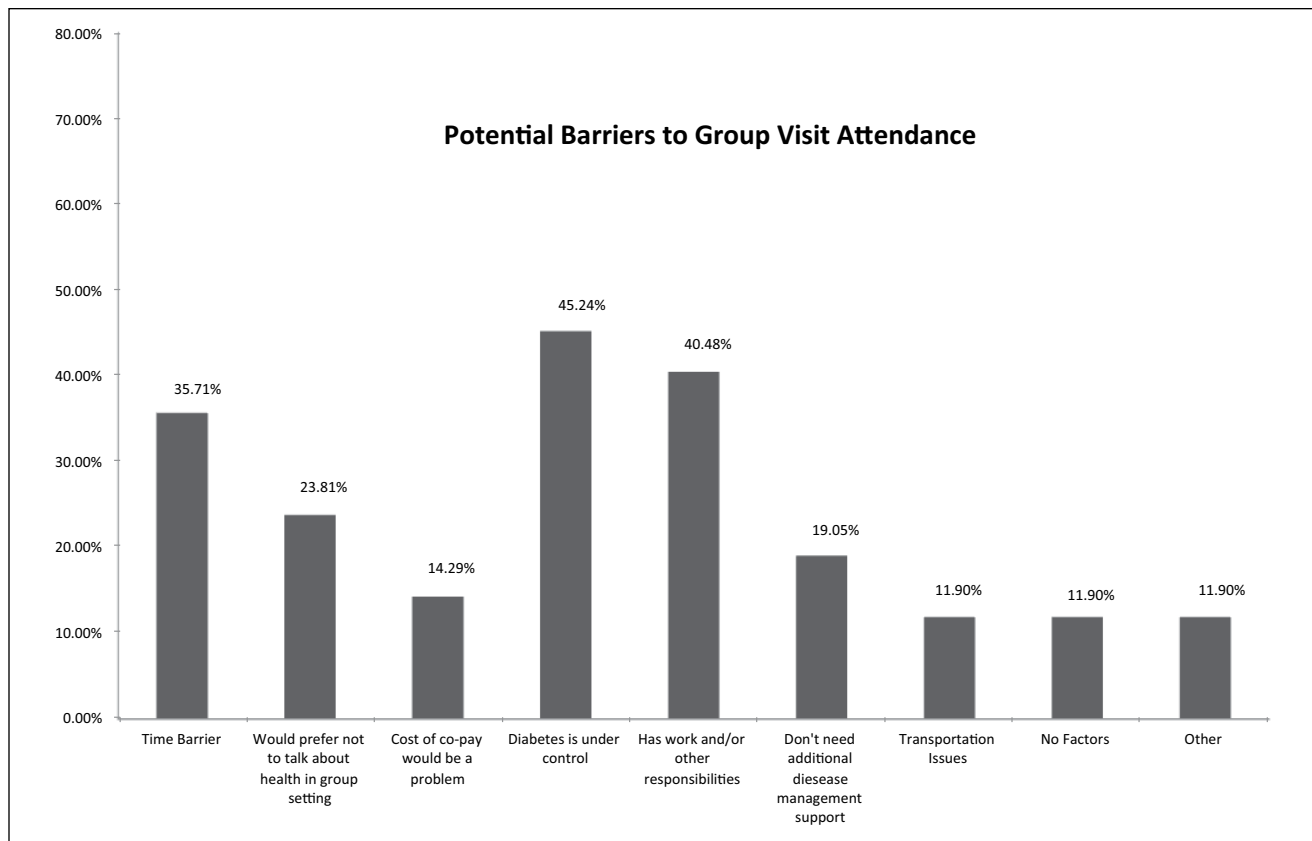
The 48 participants had a mean age of 60.4 years (SD = 13.1); 47.9% were male (n = 23). Races reported were white (75.0%), black (4.2%), and other (20.8%). In self-report, 29.2% were Hispanic, 60.4% non-Hispanic, and 10.4% did not respond.

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**Figure 1.** Potential barriers to attending a group visit for those with no prior attendance history ( $n = 42$ ).

To the question, “Would you be interested in attending a group visit at this time?,” 54% ( $n = 26$ ) responded “yes.” Variability was based on age—50% of those aged 31 to 49 years, 67% of those aged 50 to 64 years, and 38% of those 65 years and older expressed interest in attending. Ten percent ( $n = 5$ ) had attended previous group visits.

Participants identified potential reasons for not attending diabetes group visits from a list of patient barriers shown in Figure 1. The copay was identified as a barrier to attending visits, though those who named this response were only slightly less likely to attend the visits (Likert-type scale likelihood rating of 4.75 vs 4.83). Patients were asked to select the most convenient time of the day to attend group visits. Of the 29 responses to this question, 69% ( $n = 20$ ) chose “afternoon.” Respondents younger than 65 years chose “evening” 86% of the time.

In response to the question about level of diabetes control, 71% ( $n = 32$ ) reported “under control most of the time,” followed by 27% ( $n = 13$ ) indicating “sometimes under control,” 4% ( $n = 2$ ) with “difficulty controlling diabetes,” and 2% ( $n = 1$ ) “unsure.” While respondents were not matched to personal health records, the diabetes biomarkers for the practice were reviewed for a relative comparison. We found that 27% to 91% of patients in the practice with type 2

diabetes had less than optimal levels for A1c, body mass index, blood pressure, and low-density lipoprotein.

## Discussion

Although more than half of all respondents indicated interest in a diabetes group visit, they named diverse barriers to attending, the most frequent reason being that their diabetes was already under control. However, composite hemoglobin A1c, blood pressure, lipid panels, and body mass index data from all adults with type 2 diabetes in the practice registry (including the survey respondents) indicate that many individuals are not meeting optimal objective diabetes parameters. Group visits allow more detailed discussions about enhanced disease management to reduce the risk of glycemic and cardiovascular complications. In addition, diabetes is a progressive disease, and relative control at one time point does not preclude future complications.

Most respondents, particularly those younger than 65 years, stated a preference for evening classes—noteworthy, given that these patients were more interested in attending group visits. Clinicians and staff will be challenged to provide services outside of their typical hours; however, variability in class availability will enable more participation.

Virtual classes, increasing accessibility to younger, working adults, may not provide the same extent of social connection; however, social influences in diverse settings have been found to improve metabolic control.<sup>5</sup>

Increased copays, a frequently named concern, did not coincide with lower likelihood of attending the visits. While some patients prefer not to have a copay, this variable may lack internal validity and not be a true barrier to attending group visits.

A high percentage of respondents (75%) indicated their disease as under control, causing speculation that those with improved control were more likely to participate in the survey, an obvious limitation. Another limitation is the small sample size; further study involving multiple practices would clarify generalizability of our results. Future study may also include linking individual respondents to clinical data, comparing information from diabetes-related biomarkers to patients' self-report of their disease.

## Implications

Flexible models of group visits, particularly with additional groups held in evenings, may allow for increased patient participation. Additionally, copays may not be a true barrier to attendance.

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## Declaration of Conflicting Interests

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