

Overview on Group Visits in Diabetes Care and its Effects

Andrew M Davis*, Devin R Sawyer, Lisa M Vinci

Director of Quality control, Department of Medicine, USA

Corresponding Author*

Andrew M Davis

Director of Quality control, Department of Medicine,
USA

Email: Davis.am@yahoo.com

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Rapid Communication

Optimal control of blood pressure, lipids, and glycemia occurs in < 10% of patients with diabetes in national surveys, even as diabetes becomes epidemic and care for diabetes increasingly becomes the target of pay for-performance and public reporting requirements. Complicating the task is that diabetes typically coexists with multiple medical problems that compete for attention during traditional clinical visits; recent evidence suggests this barrier may be even more salient than the concept of clinical inertia [1].

Alternative models of diabetes primary care beyond traditional clinic visits have been increasingly explored, including disease management, nurse case management, and nurse practitioner doctor teams. Ambitious care delivery redesign, decision support, and patient self-management strategies have been coordinated into what is often termed the chronic care model and have shown promise in improving intermediate outcomes in diabetes.

A recent meta-analysis reviewed 11 potentially useful quality interventions in diabetes care and concluded that 2 were most effective, namely health care team changes and case management. Compared to more ambitious practice redesign, group visits are a relatively straightforward innovation that offers promise in improving efficiency and encouraging patient self-management. In this article, we review recent literature and explore practical issues from our experience in a Midwest academic medical center and a West Coast family medicine residency.

Evidence for Group Diabetes Visits

The use of group visits is an innovative approach receiving attention for its potential to improve the care of established patients with chronic conditions, such as diabetes, asthma, urological conditions, and coronary disease, while using available resources more efficiently. The terminology of group visits includes "group visits," "shared medical appointments," "cluster visits," and "problem-solving DIGMA (drop-in group medical appointments)." Most successful group visit programs include an element of between-visit care coordination and case management, typically provided by a nurse or nurse practitioner. Setting up a limited element of care coordination for attendees of group visits can be a useful step towards broader use of care coordination in a practice and can help make the case for a diabetes patient registry.

Group visits may be used in place of or in addition to usual one-on-one primary care and offer advantages in length, focus, patient interaction, and added structure. Group visits should be distinguished from more narrowly defined group education classes, which address self-management skills, exercise, and nutrition but do not provide medical evaluation, medication, adjustment, or the coordination and delivery of preventive services that can be provided in group visits.

Group visits typically include group education, shared problem-solving, focused private or semi-private medical evaluations that allow individualized medication adjustment, and ordering of preventive services and referrals. Sessions may last from 60 minutes to several hours and typically include 3-20 patients. The draw for patients lies in the potential for group visits to provide better access and to improve counseling, between-patient learning, and self-efficacy.

Typically led by a physician or advanced practice nurse, group visits often include the participation of a medical assistant or nurse. Some systems have included intermittent participation of a social worker, pharmacist, or mental health professional.

Recent experience from the Robert Wood Johnson Diabetes Initiative suggests that basic screening with the validated depression screening Patient Health Questionnaires (PHQ-9 and PHQ-2) can readily be done in a variety of practice settings [2]. We have found the PHQ-2 very feasible during routine enrollment for group classes.

Patients often enjoy interacting in a group environment that can provide encouragement and tips that they may not receive in a short clinical visit; physicians may benefit from the change of pace and a chance to creatively and more thoroughly address the issues presented by chronic conditions common in primary care.

In evaluations of group visits, improved satisfaction has been reported for patients and clinicians, along with better quality of care and reduced emergency department and specialist visits. A few practices have reported improved practice profitability and productivity, although this is far from the rule.

Practical Issues

We address practical issues based on a range of experience in our practice sites and the literature. We offer two organizational models: a 90-minute nurse-practitioner led group visit of six to nine patients, and a second approach using a preliminary medical assistant visit and three patients seen together by a primary care physician in an hour-long session. Local resources, interests, and circumstances will influence which model, in part or in whole, is best suited for adoption.

General Comments

Patient selection and retention

Recruitment for group classes may attract a practice's most enthusiastic and knowledgeable patients. This can be an advantage because more recently diagnosed and perhaps less-eager patients can sometimes be mentored by such individuals. Strong encouragement from primary care physicians can be crucial in enrolling less-engaged patients, particularly if the physicians themselves are not participating in the group classes. Provision of healthy snacks, free parking, and phone reminders before visits can help maintain enrollment and program momentum.

Educational materials

Standardized materials have reduced the effort needed to develop a curriculum even for underserved and low-literacy populations. The American Diabetes Association (ADA) has recently updated its Diabetes Education Database (available online at www.diabetes.org), and practices considering group visits may consider formal education and practice-level ADA recognition as they identify their patients with diabetes and redesign their clinical care processes.

Reimbursement issues

Medicare does not reimburse the group education component of group visits unless it is provided by a certified diabetes educator (CDE). To qualify as a CDE, a health professional must complete at least 2,000 hours of hands-on diabetes education and pass an examination given by the National Certification

Board of Diabetes Educators, which is a significant challenge for general primary care practices.

Our approach to group visit billing has been to use the office visit Evaluation and Management (E&M) methods employed in standard one-on-one office visits. While we have gained experience with group classes, we have generally depended on traditional E&M codes billed by advanced practice nurses or physicians, using the extent of history, physical exam, decision making, and complexity. Documentation is vital in either the nurse practitioner-led or the physician-led model. Electronic or paper checklists are useful to promote appropriate documentation. Either an E&M billing code Level 3 or Level 4 (99213 or 99214) may be appropriate in a typical visit.

Nurse Practitioner-Led 90-Minute Model

Advanced practice nurses have been substituted for physicians in our pilot experience with group visits. Group size in this model is typically six to nine patients, and sessions typically last 90 minutes. Advantages to nurse practitioners as group visit leaders include their ability to conduct physical examinations, prescribe, refer, and provide vaccinations. Team changes that effectively permit nurses or pharmacist case managers to make medication adjustments by protocol or licensure without awaiting physician authorization reduced hemoglobin A_{1c} (A1C) values by more than two fold compared to all other interventions, although design of such programs must consider individual states' scope of practice requirements.

Some aspects of the exam can be conducted as a group activity, including teaching of foot self-exam and monofilament use (more information available online at www.medicalmonofilament.com) and training in home monitoring of blood pressure, which has been linked to improved blood pressure control.

In general, such modeling behavior may improve patient engagement and self-efficacy. Vitals signs are taken by a nurse, and diabetes care charts with green/yellow/red zones (indicating excellent/good/poor control based on patients' blood pressure, lipid, and glycemic control results) are prepared before the visit. The chart is then shared with patients to facilitate engagement, understanding, and shared decision making.

A similar but more generic approach and useful overview of the nuts and bolts of organizing 90-minute shared medical appointments has been published by Bronson and Maxwell, based on experience at the Cleveland Clinic [3]. The authors provide a description of a sample session, including suggestions for patient flow, organizing focused examinations, and billing; they report that physician backlog and the satisfaction of patients and clinicians have improved. Confidentiality issues are addressed with a waiver. A physician leads the session, with an additional team member (nurse, nurse practitioner, social worker, or psychologist) running the session while the physician performs and documents private evaluations. This second member helps ensure that patients have appropriate referrals, prescriptions, and appointments as they check out and may share documentation responsibilities.

Physician-Led 1-Hour Mini-Group Visit

An alternative to the nurse practitioner model is the mini-group visit used during the past 5 years by Sawyer and associates in a family medicine residency program in Olympia, Wash. In this format, primary care physicians schedule three diabetic patients at a time for a shared 1-hour appointment in the resident continuity clinic.

Planned visits to medical assistants occur 1-2 weeks before the group visit; the assistants follow a list of standard orders signed off by the provider that include blood pressure measurement, weight and foot checks, routine laboratory tests, immunizations, and referrals to other resources, such as ophthalmology and diabetes education. Medical assistants also spend time discussing self-management goal setting with each patient. By the time physicians meet with patients, they have current laboratory results and health measures and an updated list of patient goals, which allows them more time to discuss diabetes management with patients.

Mini group visits also give patients the opportunity to share their challenges

and successes with other patients and solve problems related to the daily struggles of dealing with their chronic disease. Although the primary purpose of the visit is medical management, providers are not "driving" the care. With nondirective counseling, patients are offered choices and are included in the decision-making process. This leads to patients "owning" the medical plans that are developed. By sharing this care with other patients, they develop increased confidence to self-manage their disease, feel more accountable for their care, and feel proud to have played a role in the care of the others present. Providers may engage in conversation about lifestyle change and blend this with the medical plans that are developed. Patients are encouraged to self-manage and set lifestyle goals at the same time they are participating in medical decisions that drive their care. These visits are billed the same as equivalent traditional medical visits.

Data over a 3-year period have shown that patients who participated in planned or group medical visits and set goals had lower A1C levels than the clinic average and that the difference increased over time [4]. Patients were more likely to have had a foot exam and a dilated eye exam during the same time period. Cholesterol data were also encouraging, with the clinic LDL average decreasing from first to last measure from 116 to 101.6 mg/dl. After implementation, patient survey data suggested that patients began to value and trust the medical assistants more, describing them as "critical members of the health care team." Patients felt well cared for, better supported, and more successful and confident. Medical assistant focus group and survey data have shown that assistants want to be more involved in patient care, gained knowledge and confidence in diabetes care and self-management through the experience, and were more satisfied with their jobs [5,6]. Provider survey data have shown modest improvements in comfort with, and perceived effectiveness in, providing self-management support.

Conclusion

As this brief review suggests, the literature supporting group visits, while promising, is heterogeneous, predominantly from group model health maintenance organization settings, and has employed various combinations of health professionals and intensities of case management. Langford et al. [5] have made detailed and thoughtful suggestions for improving group visit study methodology, intervention content, and assessment techniques. The choice of optimal personnel and structure for group visits will in large part depend on local resources, and further research will be required to define how group visits are best combined with case management, information feedback to patients and providers, self-management innovation, and connection to community resources. Continued exploration is warranted given the potential for group visits to engage patients, facilitate peer learning, and improve self-management skills, while providing a change of pace for clinicians and improving the efficiency and quality of diabetes care.

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