

Clinician-Reported Barriers to Group Visit Implementation.

Beth Careyva M.D.

Lehigh Valley Health Network, beth_a.careyva@lvhn.org

Melanie B. Johnson MPA

Lehigh Valley Health Network, melanie_b.johnson@lvhn.org

Samantha A. Goodrich

Lehigh Valley Health Network, Samantha_A.Goodrich@lvhn.org

Kyle Shaak BS

Lehigh Valley Health Network, Kyle.Shaak@lvhn.org

Brian Stello MD

Lehigh Valley Health Network, Brian.Stello@lvhn.org

Follow this and additional works at: <https://scholarlyworks.lvhn.org/family-medicine>



Part of the [Medical Specialties Commons](#)

Published In/Presented At

Careyva, B. A., Johnson, M. B., Goodrich, S. A., Shaak, K., & Stello, B. (2016). Clinician-Reported Barriers to Group Visit Implementation. *Journal Of Primary Care & Community Health*, 7(3), 188-193. doi:10.1177/2150131916631924.

This Article is brought to you for free and open access by LVHN Scholarly Works. It has been accepted for inclusion in LVHN Scholarly Works by an authorized administrator. For more information, please contact LibraryServices@lvhn.org.

Clinician-Reported Barriers to Group Visit Implementation

Journal of Primary Care & Community Health
2016, Vol. 7(3) 188–193
© The Author(s) 2016
Reprints and permissions:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/2150131916631924
jpc.sagepub.com


Beth A. Careyva¹, Melanie B. Johnson¹,
Samantha A. Goodrich¹, Kyle Shaak¹,
and Brian Stello¹

Abstract

Background: Group visits have been shown to improve disease-oriented outcomes and satisfaction, yet many clinicians have not incorporated them into practice. We aimed to identify clinician-reported barriers that preclude clinicians from implementing group visits. **Methods:** Primary care physicians from one practice-based research network were surveyed regarding their experience with and barriers to group visits. The survey, developed for this study, was mailed to 246 clinicians. **Results:** Of 107 respondents (44% response rate), those in practice <10 years were significantly more likely to have had group visit experience than those with >10 years of experience. For those without prior group visit experience, training was named as the top barrier to incorporating group visits. Those with group visit experience named staffing concerns and recruitment as the top barriers to group visit implementation. **Conclusions:** Primary care clinicians without prior group visit experience were less likely to endorse group visits. Addressing the modifiable barriers may enhance the incorporation of group visits into practice.

Keywords

diabetes, health care delivery, chronic illness care, group visits

Consistent with the Institute for Healthcare Improvement's Triple Aim initiative, innovative models of healthcare delivery are needed to enhance quality and decrease costs.¹ This concern may be addressed in part by grouping patients with similar needs.² Introduced approximately 20 years ago, group visits remain a viable option to foster peer support and to improve efficiency in dissemination of education.^{3,4} Group visits—outpatient office visits designed for multiple patients with similar health-related needs to receive medical care and self-management training⁵—are meant to serve as an adjunct to routine office visits.

While most group visit research has focused on diabetes, group visits have been implemented for other conditions, including hypertension, pregnancy, and coronary artery disease.^{6–8} Many studies have demonstrated improvements in disease-oriented outcomes, satisfaction, and cost savings as a result of group visits,^{9–11} but these results have been inconsistent given the variability in curricula and topics addressed.¹²

Additionally, few clinicians have had the opportunity to incorporate group visits into their practices, despite evidence of benefits for patients and clinicians.¹³ Group visits may be more common in residency practices, given the time and resources needed to implement them. Because little is known about the modifiable barriers that may preclude incorporating group visits into routine care, the study team

sought to identify these obstacles so that strategies to address them may be developed.

Methods

A 10-question survey was developed to assess clinicians' experience with and barriers to group visits. These questions were developed from prior study of patient-reported barriers in addition to discussions with clinicians with extensive group visit experience, who provided feedback for the survey. Self-reported demographic data, including gender, age, race, and ethnicity were also collected.

The survey (see the appendix) was mailed to a convenience sample of all 246 family medicine and internal medicine clinician members in a practice-based research network (PBRN) of a tertiary care health care network in Pennsylvania. The Lehigh Valley PBRN consists of more than 90 primary care practices, but only family and internal medicine clinicians were eligible for inclusion. Practice

¹Lehigh Valley Health Network, Allentown, PA, USA

Corresponding Author:

Beth A. Careyva, Lehigh Valley Health Network, 707 Hamilton Street,
8th Floor, PO Box 1806, Allentown, PA 18105-1806, USA.
Email: beth_a.careyva@lvhn.org

Table 1. Interest and Likelihood of Conducting Group Visits.

	Participants With Group Visit Experience (n)	Participants Without Group Visit Experience (n)	χ^2
Interest in conducting group visits			
Low	0	45	32.47 ^a
Moderate	11	23	
High	16	11	
Likelihood of conducting group visits in current practice			
Low	4	57	35.54 ^a
Moderate	11	18	
High	12	4	

^a $P < .001$.

model types include hospital-owned practices, a regional practice association, independent small groups, clinics, and solo practitioners. Some practices included resident clinicians.

The mailing included a letter describing the study, the survey tool, a \$5 gift card for remuneration, and a stamped return envelope. A reminder letter was sent 1 week following the initial mailing. The survey included an introductory paragraph for clinicians who may have less familiarity with group visits defining them as follows: *Group visits consist of two components: (1) a one-on-one visit with a doctor to talk about your diabetes, followed by (2) a class about managing your illness. These visits provide an opportunity to meet other people with similar health problems as well as to share experience and learn from each other. Different topics are presented at each visit; time is allowed for the doctors to answer your questions.*

Descriptive analyses were conducted for all survey responses. The interest in and likelihood of conducting group visits questions were answered on a 10-point Likert-type scale. For analytical purposes and based on distribution, scores on these questions from 1 to 3 were categorized as low, from 4 to 6 were categorized as moderate, and from 7 to 10 were categorized as high. Subgroup analysis was performed using chi-square tests to compare responses between those with and without group visit experience. Analyses were conducted with IBM SPSS version 22.0 (IBM Corp, Armonk, NY).

Results

There were 107 responses from the sample for a 44% response rate. Mean age of respondents was 50.6 years (SD = 11.9). Mean number of years in practice was 20.5 (SD = 12.0). Respondents included clinicians practicing in rural, suburban, and semiurban environments with an average of 6.7 clinicians (SD = 6.5) per practice.

Among the respondents, 27 (25%) had organized or participated in a group visit. Only 3 were involved with group

visits at the time of the survey. Of the 27 respondents with group visit experience, 15 had exposure to group visits during medical training, 18 had conducted group visits in a practice, and 19 reported adequate training to conduct group visits in the future. Those in practice for 10 or fewer years (n = 23) were significantly more likely to have group visit experience than those in practice for 11 to 20 years (n = 32), $\chi^2(1, n = 55) = 4.50, P = .034$, and greater than 20 years (n = 47), $\chi^2(1, n = 70) = 17.02, P < .001$.

Table 1 displays respondents' interest in conducting group visits and likelihood of conducting group visits. Chi-square analysis showed that both interest in conducting group visits, $\chi^2(1, n = 106) = 32.47, P < .001$, and likelihood of conducting group visits, $\chi^2(1, n = 106) = 35.54, P < .001$, were significantly related to prior experience. Overall, those without previous experience with group visits reported low to moderate interest in and likelihood of conducting group visits, while most who had previous experience reported a desire to implement group visits again in the future.

Figure 1 shows the potential barriers to incorporating group visits into practice that respondents endorsed, broken out by past experience. Time and staffing were identified by both groups. Those with group-visit experience also identified recruitment as a barrier while those without experience identified lack of training as a barrier. Those with group visit experience named staffing concerns (n = 16), time (n = 12), and recruitment (n = 12) as the top barriers of group visit implementation. Those without group visit experience named never trained (n = 49), time (n = 47), and staffing concerns (n = 43) as their top barriers.

Respondents also identified resources required to incorporate group visits into their current practices. Both groups identified training on coding and billing (n = 19 vs 57) and training on group visit implementation (n = 16 vs 57) as resources needed to implement group visits. Additional essential resources named by those with group visit experience were time and collaborative partners (n = 16), whereas curriculum was commonly cited by those without experience (n = 45).

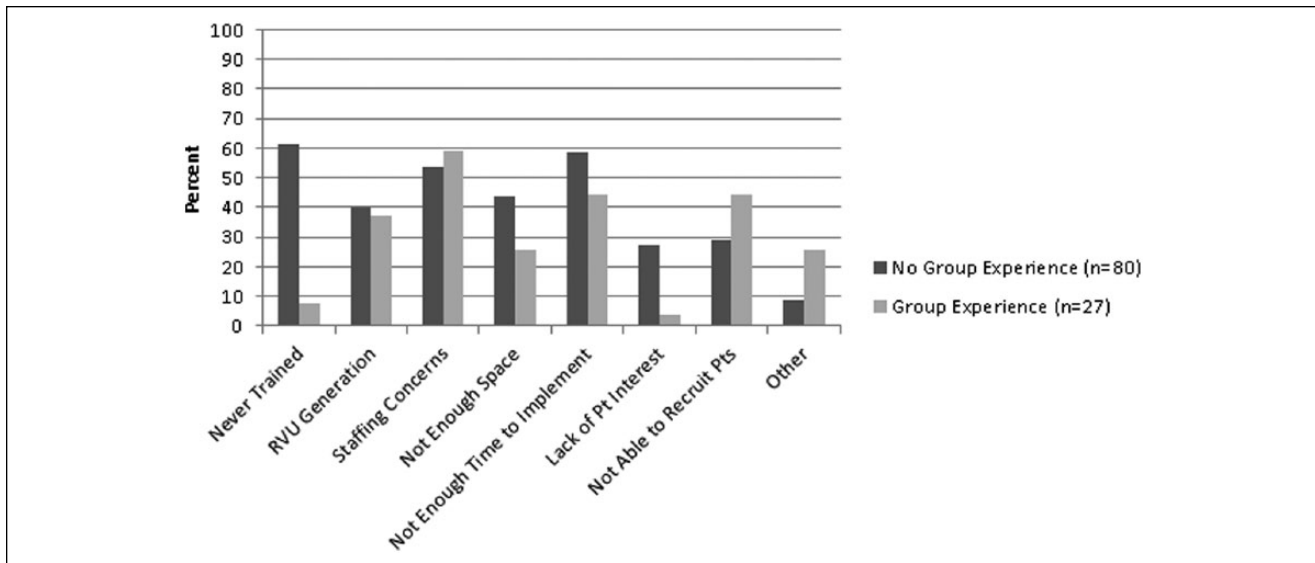


Figure 1. Factors that prevent clinicians from incorporating group visits in practice.

Discussion

Only about one-quarter of our PBRN clinicians had prior experience conducting group visits. This experience was significantly related to years in practice; clinicians who were earlier in their careers were more likely to have group visit experience. Those who had been in practice longer may not have received group visit training, which has more recently become a part of many medical school curricula. Because lack of training was a top barrier for those without group visit experience, strategies to increase clinician exposure to conducting group visits may facilitate group visit implementation in their own practices. Prior study has suggested CME as a viable approach to address this gap.¹⁴

In addition to providing opportunities for training regarding group visits, support from practice leadership may help overcome the logistical barriers cited by respondents. All respondents identified time and staffing concerns as potential logistical barriers. Development of curriculum was identified as requiring additional time, though this concern may be addressed with the use of standardized educational materials. While the implementation of any additional program may add to staff burden, physician and practice champions prove vital to the success of program sustainability. Although group visits represent a shift in clinical approach, with strong leadership and infrastructure support, they could increase the productivity of the practice, fitting within the fee-for-service world as well as in value-based practice models and community clinics.

The infrastructure needed to conduct group visits consists primarily of resources to recruit patients, make reminder phone calls, and schedule the visits. Respondents in this study with prior experience were more likely to

endorse patient recruitment as a barrier, probably because they had experienced the time-consuming task of recruitment. Further study is needed to identify best practices for recruitment and retention (ie, patient engagement), though a population-based mailing may prove successful in reducing time and resources associated with individualized recruitment methods.

Limitations of this study include use of one PBRN, which limits generalizability. These clinicians operate within one network, increasing the likelihood that they experience similar barriers to implementing group visits. An additional limitation for the analysis was the imbalance of the subgroup size between those with and without group visit experience. Given the recent implementation of group visits into practice, this may be representative of cohorts with similar ranges for years in practice. Additionally, there is potential that some respondents may have been from the same practice and as such had similar experiences. However, the median number of clinicians per practice was 5, making this less likely for most respondents.

Based on what was learned in this study, next steps may include addressing training for clinicians without group visit exposure and for those interested in further education. The modifiable, practice-based barriers named by clinicians should also be compared to the patients' perspective to explore convergence and divergence between the 2 perspectives.

Conclusions

In a sample of 107 primary care clinicians, interest and likelihood of including group visits in practice were significantly related to prior group visit experience. Time, staff support, and training were frequently cited barriers. Addressing these barriers,

particularly training for those without prior experience, may enhance the incorporation of group visits into practice.

Appendix

Survey Tool

Clinician Barriers to Implementing Group Visits. Group Visits (shared medical appointments) are office visits for up to 15 patients in which the patients receive their care in a group setting while providing education and promoting self-management. Group Visits have been shown increase physician and patient satisfaction in addition to improved physiologic outcomes. They are an efficient and cost-effective approach to distribute information and to engage patients with similar diagnoses. Despite this, they are not routinely incorporated into practice for most clinicians. We aim to obtain an increased understanding of the barriers that exist to including Group Visits as a service of each primary care practice. We appreciate your participation and are excited to hear your thoughts on Group Visits.

1. Have you ever organized or participated in a Group Visit?
 - Yes
 - No (Skip to question 2)
- a) In which of the following settings were you involved in Group Visits? (check all that apply)
 - Medical School
 - Residency/Fellowship
 - In a previous practice
 - In my current practice
 - Currently involved in group visits
- b) What health care topic did the Group Visits address? (check all that apply)
 - Diabetes
 - Obesity
 - Pregnancy
 - Smoking
 - Chronic pain
 - Other _____
2. What type of Group Visits do you think would be most beneficial for your patients?
 - Diabetes
 - Obesity
 - Pregnancy
 - Smoking
 - Chronic pain
 - Other _____
3. What factors do you think may make it difficult for your patients to attend Group Visits? (check all that apply)
 - Length of time
 - Transportation
 - Work and/or other responsibilities
 - Difficulty in affording copay
 - Patients prefer not to discuss health in a group setting
 - Patients do not need additional support for disease management
 - Other _____
4. Which of the following factors might prevent you from including Group Visits in your practice? (check all that apply)
 - I was never trained in running Group Visits.
 - I do not think that my patients would be interested in this service.
 - I do not have enough time to implement Group Visits in my practice.
 - My practice does not have the staff support for Group Visits.
 - I would worry about RVUs generated during time for Group Visits.
 - I am concerned that we would not be able to recruit enough patients
 - I do not have the proper space to hold a Group Visit
 - Other _____
5. What would your practice need in order to implement Group Visits in your practice? (check all the apply)
 - Additional staff
 - Training on Group Visit implementation
 - A large enough room/space
 - Educational materials/Curriculum
 - Practice buy-in from manager, partners, and staff
 - Training on how to code and bill the Group Visits
 - Time
 - Collaborative partners, such as nutritionists, pharmacists, etc.
 - Other _____
6. What time of day would be best for you to conduct a Group Visit?
 - Morning
 - Afternoon
 - Evening

7. How much time would you need to prepare curriculum for one Group Visit session?
 - Less than 1 hour
 - 1-2 hours
 - 3-4 hours
 - More than 4 hours
8. Do you feel that you have received adequate training on how to conduct Group Visits?
 - Yes
 - No
9. What is your interest in conducting group visits in the future?
(Likert Scale, 1 = not likely, 10 = very likely)
1 2 3 4 5 6 7 8 9 10
10. How likely are you to conduct Group Visits in your current practice??
(Likert Scale, 1 = low confidence, 10 = high confidence)
1 2 3 4 5 6 7 8 9 10

Please take a moment to provide some demographic information about yourself.

1. My gender is:
 - Male
 - Female
2. I am _____ years of age.
3. I have been in practice _____ years.
4. I currently spend _____ full time equivalents (FTEs) on direct patient care.
5. There are _____ clinicians in my practice.
6. I _____ am _____ am not in a residency practice, as certified by the ACGME.
7. I would describe my race as:
(Check all that apply)
 - American Indian or Alaska Native
 - Asian
 - Black or African American
 - Native Hawaiian or Other Pacific Islander
 - White
 - Other _____
8. I would describe my ethnicity as
 - Hispanic or Latino
 - Not Hispanic or Latino

Acknowledgments

The authors gratefully acknowledge the Dorothy Rider Pool Health Care Trust for funding this work. The authors also thank Jacqueline Grove for assistance with editing and manuscript preparation.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was funded by the Dorothy Rider Pool Health Care Trust.

References

1. Institute for Healthcare Improvement. IHI Triple Aim Initiative. 2014. <http://www.ihl.org/Engage/Initiatives/TripleAim/pages/default.aspx>. Accessed February 19, 2015.
2. Porter ME, Pabo EA, Lee TH. Redesigning primary care: a strategic vision to improve value by organizing around patients' needs. *Health Aff (Millwood)*. 2013;32:516-525.
3. Trento M, Passera P, Tomalino M, et al. Group visits improve metabolic control in type 2 diabetes: a 2-year follow-up. *Diabetes Care*. 2001;24:995-1000.
4. Davis AM, Sawyer DR, Vinci LM. The potential of group visits in diabetes care. *Clin Diabetes*. 2008;26:58-62.
5. Jaber R, Braksmajer A, Trilling J. Group visits for chronic illness care: models, benefits, and challenges. *Fam Pract Manag*. 2006;13:37-40.
6. Edelman D, Fredrickson SK, Melnyk SD, et al. Medical clinics versus usual care for patients with both diabetes and hypertension: a randomized trial. *Ann Intern Med*. 2010;152:689-696.
7. Ickovics JR, Kershaw TS, Westdahl C, et al. Group prenatal care and perinatal outcomes: a randomized controlled trial. *Obstet Gynecol*. 2007;110(2 pt 1):330-339. Erratum in *Obstet Gynecol*. 2007;110:937.
8. Masley S, Phillips S, Copeland JR. Group office visits change dietary habits of patients with coronary artery disease: the Dietary Intervention and Evaluation Trial (D.I.E.T.). *J Fam Pract*. 2001;50:235-239.
9. Jaber R, Braksmajer A, Trilling JS. Group visits: a qualitative review of current research. *J Am Board Fam Med*. 2006;19:276-290.
10. Beck A, Scott J, Williams P, et al. A randomized trial of group outpatient visits for chronically ill older HMO members: the Cooperative Health Care Clinic. *J Am Geriatr Soc*. 1997;45:543-549.
11. Jackson GL, Edelman D, Olsen MK, Smith VA, Maciejewski ML. Benefits of participation in diabetes group visits after trial completion. *JAMA Intern Med*. 2013;173:590-592.
12. Edelman D, Gierisch DM, McDuffie JR, Oddone E, Williams JW Jr. Shared medical appointments for patients with diabetes mellitus: a systematic review. *J Gen Intern Med*. 2015;30:99-106.
13. Burke RE, O'Grady ET. Group visits hold great potential for improving diabetes care and outcomes, but best practices must be developed. *Health Aff (Millwood)*. 2012;31:103-109.
14. Stowell SA, Miller SC, Fonseca V, Trence D, Berry CA, Blum J. Continuing medical education for promoting shared medical visits in diabetes care. *Clin Diabetes*. 2015;33:28-31.
15. Accreditation Council for Graduate Medical Education. ACGME Program Requirements for Graduate Medical

Education in Family Medicine. https://www.acgme.org/acgme/web/Portals/0/PFAssets/ProgramRequirements/120_family_medicine_07012014.pdf. Accessed March 29, 2015.

Author Biographies

Beth A. Careyva, MD, is an assistant professor at the University of South Florida Morsani School of Medicine and a family medicine physician at Lehigh Valley Health Network's Department of Family Medicine. She is the Associate Director of Lehigh Valley Practice-Based Research Network.

Melanie B. Johnson, MPA, is the quality and research specialist of the Department of Family Medicine of Lehigh Valley Health

Network, and coordinator of the Lehigh Valley Practice-Based Research Network.

Samantha A. Goodrich, PhD, is a senior research and evaluation scientist in the Department of Community Health of Lehigh Valley Health Network.

Kyle Shaak, RHIA, is the data specialist for the Department of Family Medicine at Lehigh Valley Health Network.

Brian Stello, MD, is the vice-chair of quality and research for the Department of Family Medicine at Lehigh Valley Health Network. He is the director of Lehigh Valley Practice-Based Research Network and director of the LVHN IRB office.