

Research paper

Group counselling improves quality for patients with limited health literacy

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ABSTRACT

Background The North County Health Centre in Reston, Virginia, recently enhanced the quality and accessibility of physician-coordinated behavioural counselling.

Methods A patient survey confirmed that the clinic could improve behaviour change support. Physician time constraints, practice productivity issues and treatment priorities were identified barriers to systems change. Systems changes included teamwork, group visits, community engagement and trusted online consumer resources. Validated statistical process control (SPC) techniques evaluated variation in monthly 90-minute group visits for Spanish- and English-speaking patients during which we reviewed evidence-based recommendations, hosted community speakers and held brief individual encounters using encounter forms with built-in motivational interviewing techniques

Results On average, four English-speaking patients attended, with 42% of the participants who attended

more than one meeting successfully achieving their self-reported goal. On average, nine Spanish-speaking patients attended, with eight (86%) of the participants achieving their goals. Documentation of recorded prevention counselling improved from 15% to 67%. Patients indicated that they found that what they learned is transferable to their everyday lives.

Conclusion The total number of patient encounters in a clinical session did not dramatically change. Language preference was not a hurdle. Teamwork among patients, providers, staff and community members was a key to success. Group visits improved the amount of prevention counselling and helped patients with limited health literacy achieve their prevention goals.

Keywords: equity in health care, health literacy, health system reform, quality improvement, teamwork

How this fits in with quality in primary care

What do we know?

Current evidence indicates that prevention counselling services covered by The Patient Protection and Affordable Care Act of 2010 are recommended to promote adoption of healthier lifestyle practices. Examples of how this can be accomplished using continuous quality improvement principles with sensitivity to issues focused on limited health literacy and/or culturally diverse language, beliefs and values are limited.

What does this paper add?

Clinical process changes including group visits for English- and Spanish-speaking patients improved the amount of prevention counselling performed in the clinic. Additional outcomes included enhanced teamwork, community engagement and the dissemination of trusted online consumer resources. These combined strategies helped patients with limited health literacy achieve their prevention goals. Language barriers between the physician leader and the patients were not a significant hurdle to the provision of counselling. This paper provides a description of this process, which can be adapted for implementation in other settings.

Introduction

Quality issue

Unhealthy behaviours are approaching epidemic proportions in the USA, contributing to a variety of debilitating conditions, many of which can be prevented.^{1,2} Additionally, reports by the Agency for Healthcare Research and Quality (AHRQ) and the Institute of Medicine (IOM) concluded that limited health literacy is a serious barrier to the appropriate use of preventive services, self-management of health conditions, and self-reported health.^{3,4} Despite this national crisis, US patients get less than 20% of the recommended counselling and education services,⁵ which demonstrates how far the nation has to go before a prevention-driven healthcare system becomes a reality.

The Patient Protection and Affordable Care Act 2010 (ACA) took a significant step toward closing the quality gap between patients' need for evidence-based preventive services and their access to them. The ACA allowed a renewed commitment to prevention by eliminating the cost barrier to accessing quality preventive services. Specifically, the Act's new preventive care rules require qualified health plans to provide minimum coverage without cost-sharing for preventive services rated A or B by the US Preventive Services Task Force (USPSTF).⁶ The new law reflects the views of a strong contingent of medical, public health and governmental stakeholders who support the pursuit of new approaches to improving the access, quality and consistency of prevention-based services.⁷

Behavioural counselling services

The behavioural counselling that will be without cost-sharing for qualified patients under the ACA covers

healthy diet, smoking cessation and alcohol management. Multiple evidence-based policy initiatives complement the USPSTF's recommendation of 'Intensive behavioural dietary counselling for adult patients with hyperlipidemia and other known risk factors for cardiovascular and diet-related chronic disease. Intensive counselling can be delivered by primary care clinicians or by referral to other specialists, such as nutritionists or dieticians'.⁸ The *Guide to Community Preventive Services* (the 'Community Guide') goes beyond the USPSTF's recommendations for behavioural change support to include counselling aimed at increasing physical activity.⁹ Specifically, individually adapted behaviour change programmes and social support interventions in community settings are recommended in the Community Guide. Additionally, the Healthy People (HP) initiative and the National Action Plan for Improving Health Literacy (NAP) offer evidence-based objectives (HP 2010 and 2020) and strategies for implementing behavioural change support in ways that activate patients with limited health literacy and/or culturally diverse beliefs and values.¹⁰

A quality improvement project

Given the strong evidence and recent national policy support for quality behavioural counselling, staff led by a physician champion at the North County Health Centre (NCHC) in Reston, Virginia, initiated a project to enhance the accessibility and quality of behavioural counselling in the clinic. The primary question addressed was: in a clinic where payment is not a significant barrier (care is at a reduced cost to patients or on a sliding scale), what process changes are required to improve patients' access to quality behavioural counselling based within the clinical setting?

Methods

Design

The patient profile at NCHC was reviewed to facilitate the quality improvement (QI) initiative. Patients had to be residents of Fairfax County, have an income at or below 200% of the federal poverty level and lack affordable health insurance, Medicare or Medicaid. A survey of currently enrolled patients at the NCHC indicated that English and Spanish were the two most used languages at the clinic. A total of 24% of patients preferred English and 56.9% of patients preferred Spanish ($N = \text{clinic population} = 5440$). This profile suggested a need for a curriculum designed to improve health literacy while accommodating language and cultural differences.

Additionally, an NCHC staff member conducted a patient needs assessment. The objective was to better understand the patients and their perspectives on the availability of behavioural change support at NCHC.

Patients who sought care at NCHC were randomly selected ($N = 9$) to complete the *Patient Assessment of Care for Chronic Conditions* as developed and published by the Dartmouth-Hitchcock Medical Centre.¹¹ Translation assistance was used for patients for whom English was not their primary language. Mean scores on a scale of 1 (*never*) to 5 (*always*) for patient responses to selected questions were as follows:

- 'I was given a written list of things I should do to improve my health' ($M = 1.7$)
- 'I was helped to set specific goals to improve my eating or exercise' ($M = 2.3$)
- 'I was encouraged to go to a specific group or class to help me cope with my chronic condition' ($M = 1.9$)
- 'I was encouraged to attend programmes in the community that could help me' ($M = 1.6$)

These patients confirmed clinicians' impressions that the clinic could improve behaviour change support, creating a tension for change at NCHC. The processes and interactions at NCHC, as in most clinics, represent a complex interplay of system factors, such as physician time constraints, practice productivity issues, prevalence of acute or chronic disease issues of greater urgency, and reimbursement and billing constraints.¹² Creating systems-change solutions in order to overcome these barriers and improve care was the primary challenge of this project. The team followed the Systems Improvement Perspective to enhance service quality and integrate the priorities discussed above: use of evidence-based services tailored to the patient population being served and evaluation of the process with outcome measures.¹³ To understand the nature of the

improvement, the following questions guided the choice of solution:

- How do we maximise patient participation?
- How would we know whether patients were reaching their goals and if visits were especially successful in making that happen or not?
- Are behavioural counselling services increasing?
- What are patients' assessments of the value of the behavioural counselling?

The evidence base for the group visit curriculum came from two well-established resources: *The U.S. Preventive Services Task Force* and *The Guide to Community Preventive Services*.^{8,9} The intent was to provide patients with a solid set of prevention skills and knowledge they could easily apply in their own life settings.

To effectively provide quality behavioural counselling in the clinical setting, four significant process changes were considered necessary:

- organising teamwork, enhance trust and cooperation between patients and the clinical staff, and facilitate productive interactions among and between patients and the provider/group facilitator that would leverage social support for achieving patient-centred goals;
- making group visits part of the standard of care;
- initiating interactions with community health-promoting resources; and
- prescribing and explaining trusted online healthful-behaviour resources designed to improve health literacy.

The expanded chronic care model (ECCM) served as a systems framework for these process changes.^{14,15}

Clinical teamwork

This project required a prepared, proactive practice team capable of leading prevention efforts, using a team-oriented approach. Active participation among its members was encouraged for problem-solving, changing the existing work flow for routine patient care, and promoting the patient's own goals for health improvement. This new approach to anticipatory processes required a new work flow. Tasks such as referrals, encounter-form processing, conference room reservations, front desk and charting system duties, billing and confidentiality form processing were changed from individual to collaborative tasks. Time for curriculum development, data collection, patient calls and reminders, and community involvement was designated for various team members. Some individual visit time was shifted to group visit time.

Group visits

Since its inception in 1974, the group visit model has gained credibility as an effective way to address numerous complex healthcare issues, including lack of access, restricted physician time and increasing numbers of preventable illness.¹⁶ Group visits incorporate many components usually found during a physician–patient visit but also go a step further by incorporating group discussions about health topics as outlined in the ECCM.¹⁷ The addition of group discussion provides social support that increases patients' self-efficacy in making important behaviour modifications. Although such visits have not shown definitive improvement in clinical indicators, studies have shown significant increases in patient satisfaction, physician satisfaction and quality of care provided.^{17,18} The majority of group visits focus on disease-specific chronic conditions and their management. However, respected sources suggest that this model could be effective in a clinical primary prevention setting.¹⁶ To date, evidence supporting this notion has been limited by a lack of physicians who currently use the group visit model to address preventive health.

Community involvement

Following the ECCM model, the team solicited community involvement, including local fitness centres, grocery stores and local resources capable of continuing support for healthy behaviours offered in the clinical setting.

Trusted online prevention guidance

Patients spend their time and make most of their health-related decisions within the context of their family and community settings. The group visit curriculum included trusted online prevention resources to provide ongoing behavioural change support within those contexts. For example, healthfinder.gov has a 'Quick Guide to Healthy Living', evidence-based wellness guidance. One of healthfinder.gov's additional tools, myhealthfinder, has easy-to-use clinical preventive services decision support based on the *Guide to Clinical Preventive Services*. healthfinder.gov was designed especially for people with limited health literacy and Web experience, in English and in Spanish. Some group visit sessions included demonstrations on how to use this resource, and patients were encouraged to access it at home or at their library.

Setting and subjects

The NCHC practice incorporated English- and Spanish-speaking monthly prevention group visits available to any enrolled patient, modelled after other

promising practices in group visits.^{19,20} It is important to note that the English-speaking visits were developed to accommodate a diverse population of patients that speak a wide range of languages. Many of the participants in the English-speaking visits did not speak English as their first language. The time reserved for group visits resulted in a decrease of two clinic sessions for routine patient care per month for the group visit provider. Additionally, approximately one day per week was dedicated to development and management of the QI project.

Each set of Spanish- and English-speaking group visits covered the same topics. Patients could be referred to the group visits by any member of the clinical staff. Most often, patients were referred by their provider. All clinic providers were asked to support the group visits by referring patients and encouraging them to participate on the basis of the patient's risk profile. The team reviewed provider referrals, and the predominant risk profile indicated the need for counselling on diet, exercise, and weight management.

At the start of each visit, patients signed a form emphasising the importance of confidentiality and offering the option of an individual appointment. Because the physician champion spoke basic Spanish, these visits were translated when necessary by the Spanish-speaking support staff. Group visits were held in English for patients that spoke at least basic English. However, English was not always their first language. Each 90-minute group visit consisted of three components:

- 1 Review of evidence-based recommendations from the *2005 Dietary Guidelines for Americans* from the U.S. Department of Agriculture (USDA) and U.S. Department of Health and Human Services (HHS) or the *2008 Physical Activity Guidelines for Americans* from HHS.^{21,22}
- 2 Facilitated group discussions including a speaker. Community partnerships were fostered with the Fairfax County Community Services Board, the Herndon Community Centre, Giant Foods, as well as clinic-based physical therapy, nutrition education and mental health providers. For example, partner Giant Foods acted in a programme support capacity and provided a clinic–community relationship essential to the sustainability of the programme. They provided 'healthy' grocery shopping tours in their store to empower patients with the knowledge and tools necessary to make informed choices about food purchases. Health literacy improvement strategies were used to adapt to the limitations that patients with limited education encounter when trying to understand complex health information. They included: (a) simplifying the science-based Dietary and Physical Activity Guidelines; (b) walking patients through the online resource

(healthfinder.gov) for personal wellness and preventive services decision support; and (c) making the counselling sessions concrete, applied and personalised with multiple examples and opportunities to experience the information presented by the physician.

- Brief individual patient encounters with the provider. The NCHC relies on paper charts, so the team used an encounter form that contained built-in motivational interviewing techniques geared to ask patients why they chose to attend the visit and on what 'small step' they would like to work until the following visit.²³ The encounter form made it easier for the physician to calculate the patients' Body Mass Index, document patient-centred goals, evidence-based guidelines reviewed and the resources provided during the visit. Upon return to a group visit, patients were asked whether they had met their goal, and this was recorded on the form.

Results

Quantitative data

Quantitative and qualitative patient data were gathered over the nine-month project period in a plan-

do-study-act (PDSA) cycle to evaluate the success of the QI initiative.^{24,25} Quantitative data were collected about patient participation, patient-centred goal achievement and increased preventive-services counselling about patient attitudes. Patients' perspectives were assessed qualitatively.

The validated statistical process control (SPC) techniques quantify the attendance rate and self-reported goals met for the patient groups. This method was chosen over traditional statistical techniques in order to establish a baseline for our current practices and subsequent assessment of variation in our system for continuous quality improvement. XmR charts tracked patient participation and p-charts tracked patient-centred goal achievement, and increased preventive-services counselling.

The process measure of the average attendance rate for that group was four patients without significant variation, as illustrated in the chart in Figure 1. As shown in the p-chart in Figure 2, 42% of the English-speaking participants who had attended at least one meeting met their self-reported goal and variation occurred in this system. As shown in Figure 3, the average number of Spanish-speaking patients attending the group visit was nine. There was little variation in the group visit numbers. However, when the group visit attendance went above nine patients, the clinical team perceived some stress on the system. On average,

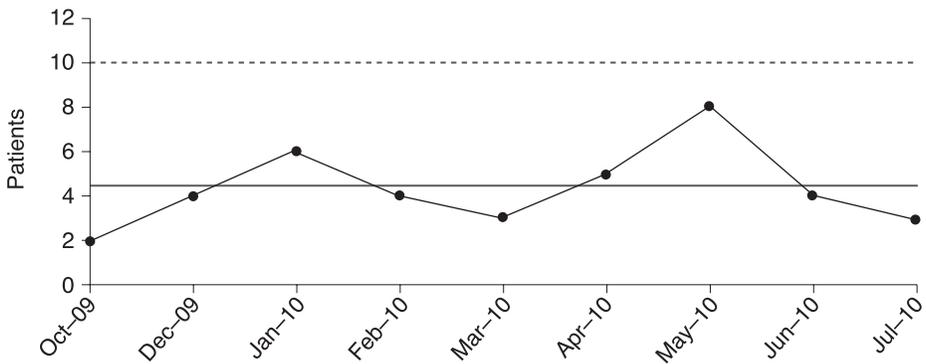


Figure 1 English-speaking group visit attendance. Dashed line = upper control limit, solid line = centre line (mean), dotted line = data points.

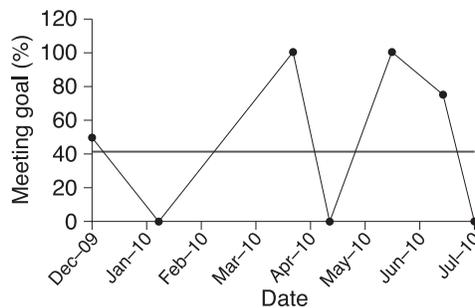


Figure 2 English-speaking patients meeting their stated goal. Solid line = centre line (mean), dotted line = data points.

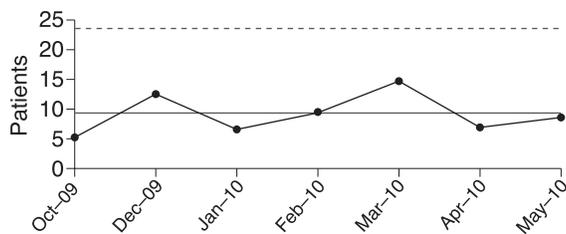


Figure 3 Spanish-speaking group visit attendance. Dashed line = upper control limit, solid line = centre line (mean), dotted line = data points.

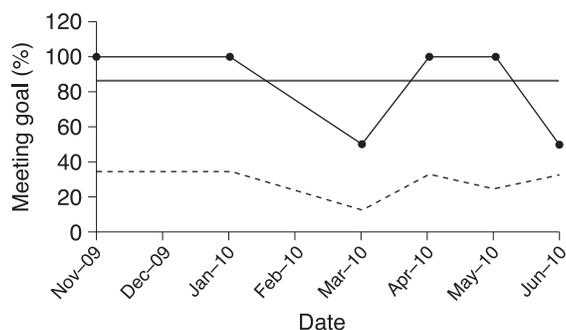


Figure 4 Spanish-speaking patients meeting their stated goal. Dashed line = lower control limit, solid line = centre line (mean), dotted line = data points.

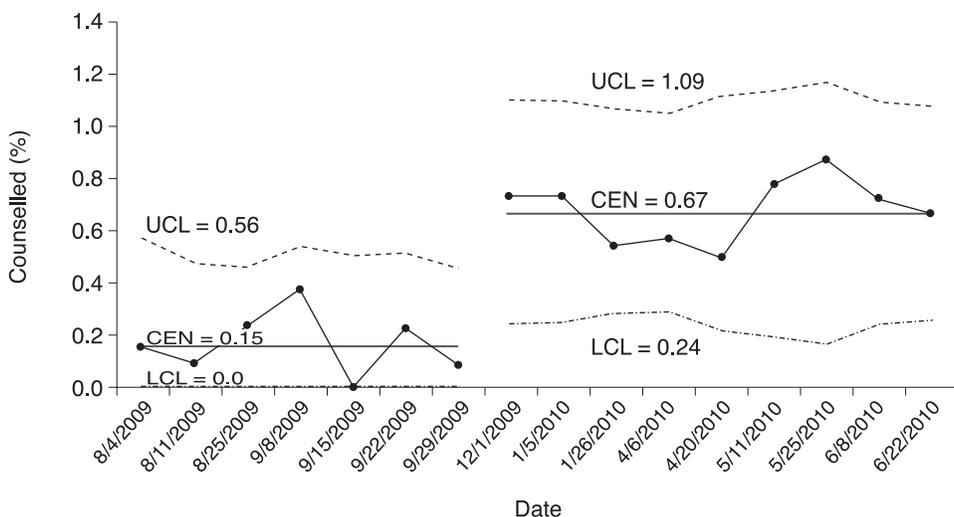


Figure 5 Patients receiving prevention counselling pre/post intervention. UCL = upper control limit, CEN = centre line, LCL = lower control limit.

86% of self-reported goals were accomplished by the Spanish-speaking participants without any data point crossing the lower control limit, as shown in Figure 4. To review, one over-arching question of this project was: what process changes are required to improve patients' access to quality behavioural counselling based within the clinical setting? Therefore, documenting the change in frequency of prevention counselling before and after the group visit programme was important. The team established a baseline by conducting a chart review to identify the percentage of patients coun-

selled on preventive measures. It was counted if their documentation included 'therapeutic lifestyle changes', 'encouraged change in dietary habits' or 'discussed activity changes' on seven routine clinical days. Next, a chart review was conducted on nine days following the start of the prevention group visit programme. These visits consisted of a half-day of routine clinical visits and a half-day of the group visit prevention programme. Figure 5 portrays the findings of these data. Before the programme began, the average percentage of patients counselled during routine care was 15%

($N = 72$). Post intervention, due to the dedicated time for prevention counselling, the average percentage of patients counselled increased to 67% ($N = 99$).

Qualitative data: patient and provider perspectives

To understand patient perspectives and determine opportunities for further quality improvement, six patients who had participated more than once in a prevention group visit were interviewed. Of the patients who volunteered, four were from the English-speaking group and two were from the Spanish-speaking group. Prior to the interviews, patients were informed of the following conditions. All responses would be kept in strict confidence, declining the interview would not affect access to ongoing care, and compensation would be provided for participation. During the interview, patients were asked a series of questions, with topics ranging from group effectiveness and structure to recommended areas of improvement. At the conclusion of all the interviews, a review of the qualitative responses revealed the following themes.

The English-speaking patients generally thought that group visits effectively communicated the benefits of adopting new nutrition and exercise behaviours. Additionally, they indicated that they benefited from the social support and experience of fellow participants. Patients were also comfortable with asking questions and interacting with the physician during the visits. In addition, many expressed satisfaction that the visit had enabled them to spend additional time with the primary care physician above and beyond the routine appointment. As a final measure of programme utility, patients indicated that they found classroom techniques and strategies for healthier living easily transferable to their everyday lives.

The Spanish-speaking group attendees reiterated many of the main points mentioned by their English-speaking contemporaries. Participants enjoyed learning how to take better care of themselves and improve their overall health and well-being. They also thought that setting a personal goal at the end of each visit, such as changing from white to brown rice, was a good way to apply class lessons in real-life settings. With regard to consistently attending classes, interviewees mentioned family needs conflicting with scheduled visit appointments. However, they generally thought that current class scheduling and appointment times did not need to be changed to improve access.

Additionally, the physician champion and medical assistant enjoyed the interactions with the patients in the group visit setting and believed it effectively focused attention on preventive care. Interestingly, other providers and staff members asked to participate in the group visits and offered ideas and suggestions on topics for future visits.

Discussion

Many lessons learned were identified during this project. First, although the nature and focus of patient encounters changed, the total number of patient encounters in a clinical session did not significantly change with transition to group visits from routine care. In fact, in some cases, the number of patients seen in a visit exceeded the typical number seen in a routine clinical session. Additionally, this QI effort demonstrated that differences in language preference were not necessarily a hurdle for implementation and helping patients meet their goals. Members of the Spanish-speaking group were more successful in attaining their goals even though their group had been facilitated by a physician champion with basic Spanish capability. We believe that this is evidence that language barriers were managed through translation by the support staff when necessary. Therefore, differences in language preferences should not limit attempts at prevention counselling in future improvement efforts.

Establishing baseline counselling rates allowed comparison with changes in rates with this QI initiative. This knowledge helped to establish that when prevention counselling was systematised into routine care with dedicated visit time and the encounter-form prompt, documented counselling rates increased.

Additionally, it was evident that teamwork among patients, providers, staff and community members, as depicted in the ECCM, served as the underpinnings in the QI implementation and PDSA cycles. Staff members felt engaged in the project and offered suggestions for ongoing improvement. The partnerships established with community members served to enhance the conversations in the group visits and enabled patients to act on those conversations in their daily lives. Certainly, this collaboration could not occur without dedicated time for such efforts. Administrative-level support for change and continued implementation led by a provider champion was critical to the QI initiative. Without such a vision, tests of change to routine care could not occur. Additionally, curriculum development is under development to reduce administrative effort in future projects.

There were several limitations to this quality improvement work. The pre-intervention patient assessment consisted of a small number of patients. Additionally, the results are based on a short period with a small number of patients. We believe that many practices interested in micro-system changes face significant constraints with respect to time and resources and they must move forward with continuous improvement work with brief, focused assessments and examination of variation in systems despite the small sample size.

Use of the group visit day is problematic because increases in prevention counselling would be expected. However, we needed to begin measurement of our system in order to understand the impact of changes to our processes and inform future improvements.

The implications of replacing routine care time with preventive health group visits will require further study. Other clinics in the network have voiced interest in the project and may use the lessons learned in the pilot for future QI initiatives to support group visits in their particular context. The group visit model successfully improved the amount of prevention counselling and helped patients with limited health literacy achieve their prevention goals at the North County Health Centre in Reston, Virginia

ACKNOWLEDGMENTS

Our thanks to Jean Glossa, MD, MBA, FACP, Medical Director Molina Healthcare of Virginia and Tina M Kenyon, ACSW, Faculty, New Hampshire-Dartmouth Family Medicine Residency. Thanks also to Dominic Geffken, MD, MPH and Amanda D Rechisky, MS, New Hampshire-Dartmouth Family Medicine Residency.

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FUNDING

This work was supported by the Office of Disease Prevention and Health Promotion, in the Office of the Assistant Secretary for Health, US Department of Health and Human Services.

ETHICAL APPROVAL

This study was conducted as a quality improvement project.

PEER REVIEW

Not commissioned, externally peer reviewed.

CONFLICTS OF INTEREST

None.

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Received 6 June 2011

Accepted 6 November 2011

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