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LEAP—A Brief Intervention to Improve Activity and Diet: A Report From CaReNet and HPRN

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PURPOSE

The purpose of our project was to test a practice-level intervention to increase use of evidence-based strategies for promoting physical activity and healthy diet by primary care patients. The intervention is based on the premise that if you create an office culture that promotes healthy behaviors among clinicians and staff, they will be more likely to provide brief behavioral counseling to patients.

METHODS

Leaders in Effective Activity Planning (LEAP) was a randomized study of a multilevel intervention to promote improvement in physical activity and healthy eating through brief counseling, goal setting, and feedback. We

compared an intensive practicewide intervention with a minimal intervention in 12 primary care practices within the Colorado Research Network (CaReNet, n = 8) and the High Plains Research Network (HPRN, n = 4). Randomization occurred at the practice level.

In 6 intervention practices, clinicians and staff used the behavior change tools to make their own personal changes for 1 month before using these same tools with their patients. These practices received support from change coaches—a nurse practitioner, a family physician, and a registered dietitian or health educator. Coaches helped practices encourage officewide behavior change through group activities and pedometer use. Intervention practices received promotional items (posters, flyers, pins, and ribbons) to advertise to patients the practice members' behavior changes and the LEAP study.

The 6 control practices did not receive coaching or

promotional items, were not specifically asked to coach patients, and were provided only basic support from research staff. These practices were trained in the use of the tools and asked to immediately begin enrolling patients.

Participants received a pedometer and a short educational booklet, which was adapted for primary care office use from tools developed by Colorado on the Move, now known as America on the Move.¹ The LEAP tools are available online.² Practices were asked to screen and enroll interested patients older than 18 years using a goal-setting form. Each practice was asked to recruit up to 75 patients to reach an overall enrollment goal of 900 patients. After patients were enrolled, the intervention practices' champions were encouraged to telephone patients twice to help encourage change.

We collected 2 types of data during the 6-month study period: (1) practice-level information from qualitative interviews, field notes, and visits, and (2) information on individual participant's self-assessed progress toward goals, collected from an automated telephony system. Participants called the system to enter their goal (physical activity or nutritional) and their weekly score rated on a 4-point scale from 0 (did not work on goal) to 4 (exceeded goal). We compared patient recruitment, an important intermediate outcome indicating level of motivation to enroll patients, between intervention and control practices. This project was approved by the campus and hospital institutional review boards, and all practice personnel signed consent forms.

LESSONS LEARNED

The intervention, personal use of the LEAP tools by clinicians and staff before patient recruitment, did not improve patient enrollment or the likelihood of patients submitting any data to the telephony system; however, we encountered surprisingly high rates of participation among clinicians and staff and found evidence that these practice personnel were able to make and sustain personal changes.

Of the 271 participating practice members, 109 were in control practices (representing a 64% participation rate) and 162 were in intervention practices (86%). In our analyses of patient-level data (Table 1), patients in the intervention practices reported data for more weeks than did patients in the control practices (2.8 vs 2.0 weeks, $P = .033$).

Data from interviews and field visits show that practices liked LEAP's simple approach to improving activity levels and diet. Both groups found the tools easy to use. The intervention practices indicated that using the tools was personally rewarding, with many practice members reporting considerable lifestyle changes. In one office, 3

Table 1. Patient-Level Data for the LEAP Study

Measure	Intervention No. of Patients	Control No. of Patients
Screening forms used	676	576
Goal-setting forms received	161	287
Any patient data entered	120	230

LEAP = Leaders in Effective Activity Planning.

Note: $P > .10$ for proportion of patients who entered data versus proportion who enrolled.

previously inactive staff participated in a minitriathlon. The process of working on changes together, sometimes as a friendly competition, helped members make changes. One office started a new competition after the study was over because the first one was "too easy." Various practices' staff members indicated they lost 10 to 15 pounds through changes they believe they can maintain. Participants found simple ways to add activity to their daily lives. For example, one practice member stated, "I park in the back of parking lots and don't look for the close-in spot." Another individual found ways to make small changes within her work environment, such as delivering requested items to others instead of asking them to come to her, and walking around her work area during lulls. These changes increased her daily steps from fewer than 4,000 to more than 10,000 and helped her lose weight. Overall, the intervention practice members indicated they were more aware of their habits, providing comments such as, "It opens people's eyes to what it takes to be physically active," and "I found out more about the kind of food I eat. It helps me be more aware and I do eat a lot," and "The LEAP booklet gave me the options to think about the food I eat." Practices reported that some patients also made important lifestyle changes.

Many offices have adopted the concept of making simple changes and continue to use LEAP tools; one office requested extra booklets to share with a second office in another community. All practices indicated that they would like to continue to use our booklet.

Similar to previous research,³⁻⁵ we found that a multilevel intervention involving simple behavior change tools can help practice members make personal lifestyle changes. Although the LEAP tools were successful in motivating change and helping practice members improve activity levels and diet, these positive benefits did not translate into higher patient enrollment in the LEAP study. There are several possible explanations for this finding. Both control and intervention practices expressed a need for LEAP-like tools before beginning the study and found the LEAP tools helpful and easy to use, which may have mitigated any potential differ-

ences in recruitment. Control practices were able to personally use the tools after completing patient enrollment, which may have motivated control practices to complete enrollment quickly. The telephony system we used for research purposes presented a barrier, decreasing our ability to detect behavior changes at the individual level. For both groups the average number of weeks participants reported data was very low because many patients reported only 1 week of data.

CONCLUSIONS

Interventions designed to fit unique interests and needs of each practice, including easy-to-use informational resources and incentives, can change behavior and promote a healthy primary care office. Personal success with behavioral change activities and practice-level enthusiasm for change did not translate to enhanced patient recruitment, however. Fitting health promotion into personal routines for clinicians and staff seemed easier than integrating LEAP tools into the routine of busy primary care practice. Although early findings suggest a very modest impact of the LEAP tools for both control and intervention patients, enhancing coaching skills and using simpler self-monitoring systems might improve the program's impact.

To read or post commentaries in response to this article, see it online at http://www.annfammed.org/cgi/content/full/3/Suppl_2/S52.

Key words: Primary care; behavior change; practice culture; exercise and diet; physical activity; diet; practice-based research network; health behavior

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Mutual Learning and the Transformation of Study Intervention Tools

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PURPOSE

We planned a multicomponent intervention to increase primary care practices' provision of health behavior advice and patients' access to resources for health behavior change. The intervention included 2 tools: (1) a Web-based resource (<http://www.arch2healthyhabits.org>) consisting of a database

of community programs for health behavior change (eg, smoking cessation classes) and links to health behavior self-management resources (eg, change strategies), and (2) a prescription pad for health behavior change (Pad).¹ The pocket-sized Pad, measuring 4 in by 6 in, was designed to facilitate clinician-patient discussion of health behaviors and to prompt treatment planning. The uniform resource locator (URL) and a