Preparing Faculty to Teach Managing Care Competencies: Lessons Learned From a National Faculty Development Program

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Background: Although competencies for managing care are often described in the medical literature, educators have been slow to integrate these competencies into clinical curricula. Backlash against managed care has created a skeptical educational environment. Many faculty feel unprepared to teach the competencies in clinical settings. Methods: From 1999 to 2001, we designed, implemented, and evaluated a faculty development program, funded by the Bureau of Health Professions, Division of Medicine. The goal of the program was to increase Undergraduate Medical Education for the 21st Century (UME-21) and Partnerships for Quality Education (PQE) faculty skills in teaching quality improvement and cost-effectiveness in the clinical setting and to prepare them to teach these topics to other faculty. Results: Thirty-nine faculty attended the 4-month faculty development program. The program, in a train-the-trainer model, consisted of two 2-day workshops as well as pre-, mid-, and end-program activities and teaching experiences. Readings, brief lectures followed by focused discussion, and active learning experiences were used to teach content, provide experience and feedback with teaching skills, and model a variety of teaching approaches. Conclusions: By the end of the program, participants believed that they had learned content (knowledge) and gained practical teaching skills. To be successful in effecting curriculum change around new topics, such as the managing care competencies, faculty need to not only master new content and methods but also learn how to be change agents in their schools. Because this work can be lonely, faculty need support within the school and connections with others, locally and nationally, who have similar ideas.

Physicians in training are not prepared for their roles in the new health care environment.1,2,4 Leaders in medical education2,4 have described the competencies needed to manage care effectively in a complex and changing health care environment. These new competencies include an understanding of the health care system, evidence-based medicine, quality improvement, system-based care, cost-effectiveness, health promotion and disease prevention, population-based care, and the ethical issues surrounding clinicians’ divided responsibility for both individual patients and groups. While these issues are discussed in the medical literature, educators have been slow to integrate competencies in these areas into clinical curricula.15

Why has change been so slow? Many faculty have had bad experiences with managed care and mistrust it.13 Even when well disposed toward managed care, many clinical faculty do not feel comfortable with this educational content or with their own knowledge of these new competencies and thus feel ill prepared to teach them. Moreover, making substantive changes in medical education can be difficult, as evidenced by previous reform efforts that have not produced sustained educational change.9

The existence of two national programs in medical education, Undergraduate Medical Education for the 21st Century (UME-21) and Partnerships for Quality Education (PQE), created a unique opportunity to stimulate reform by leveraging faculty development efforts around these new competencies. While UME-21 and PQE focused on different levels of learners, they were both intended to prepare trainees for practice in the new

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health care environment, where managing and integrating care is so important.

From 1999–2001, we developed, implemented, and evaluated a 4-month program to enhance the curriculum development and clinical teaching skills of UME-21 and PQE faculty. This program was funded by the Bureau of Health Professions, Division of Medicine. We emphasized two of the managing care competencies—quality improvement and cost effectiveness; our objective was to prepare these faculty to teach the competencies to other faculty. This article describes the lessons we learned in designing and implementing the faculty development program.

Methods

The Faculty Development Program

In establishing the faculty development program for the UME-21 initiative, we first reviewed the content of managing care competencies and published research on teaching the competencies. We then conducted a needs assessment and solicited recommendations from a national Advisory Committee. Table 1 describes the managing care competencies as we defined them for this project.

Next, we designed a continuum of both theoretical and practical learning to encourage optimal sharing of ideas and experiences and to model a variety of approaches that the clinical teacher could add to his/her personal repertoire. Participants defined a teaching innovation of interest to them and their institution, attended the first 2-day workshop, and then returned to their own institution to practice what they had learned. Two months later, they returned for a second 2-day workshop and used what they learned to teach other faculty at their home institution. A complete description of the program is available on the project Web site (www.hms.harvard.edu/ambulatory/hrsa.html).

A total of 39 faculty, 20 from UME-21 schools and 19 from PQE schools, attended the program. We measured the effect of the program on participants’ perceptions of their own growth in knowledge of and skill in teaching the managing care competencies. As previously described,10 participants’ pre-program ratings of their competency to teach the managing care topics were lower than their assessment of their knowledge of the topics. By the end of the program, participants felt that they had gained competency to lecture on and teach all of the topics in the clinical setting. Change was greatest for knowledge of, competency to lecture on, and competency to teach about quality improvement in clinical settings. Participants also noted a significant increase in knowledge of, and competency to lecture on and clinically teach, the second targeted area, cost-effectiveness.16

Discussion

We learned many lessons from this project. We present here the 10 lessons we felt are most important.

(1) By organizing and presenting the competencies in relation to the care of individual patients, and only secondarily to the care of populations or health policy, the competencies are more relevant to clinicians and clinician-teachers.

While many sources have described managed care competencies,1-6,10,11 they tend to aggregate them somewhat differently. We reorganized the competencies to mirror the way clinicians actually think about them in practice and read about them in the medical literature, separating issues relating to the care of populations from those relating to the care of individual patients. We combined highly related competencies, such as informatics and evidence-based medicine (EBM), and separated issues according to where they could be taught best. This allowed us to focus on areas within the competencies that are most relevant for clinician-teachers.

(2) Many published articles describe the managing care competencies and their importance, but few are about teaching these competencies in the clinical settings, and fewer still report evaluations of the effectiveness of educational interventions.

Most articles on managed care and medical education emphasize the difficulties that managed care is causing academic medicine.10,12-14 The extent of the literature base on the individual managing care competencies, however, varied widely. For a few of the competencies, such as evidence-based medicine, informatics, and health promotion, the literature is robust. For others, such as population-based care, system-based care, and implementation of cost-effective care, few articles have been published. Few of the descriptions of curriculum innovations included an evaluation of their effectiveness. Appendix 1 describes the articles that we found most useful for teaching each competency.

(3) Experienced clinician-teachers are often not prepared for the educational aspects of their work, such as

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Table 1

The Managing Care Competencies

As Defined by This Project

- Evidence-based medicine and informatics
- Population-based care
- Ethics of managing care
- Patient-provider communication
- Health promotion and disease prevention
- System-based care
- Cost-effectiveness*
- Health systems
- Quality improvement*

* The focus of this faculty development program
using the full range of teaching methods, developing curricula, and evaluating students’ performance.

During telephone interviews, 12 seasoned primary care (pediatrics, internal medicine, and family practice) clinician-teachers across the United States told us that they were most comfortable teaching EBM and informatics and least comfortable teaching leadership, quality improvement, and systems-based care. Many of their programs used expert faculty from other departments and institutes to teach the competencies with which they were least familiar. While using outside faculty made it possible to teach the course content, it reinforces the need for faculty development because the learners infer that clinical faculty, their role models, are not able to teach these topics.

Participants were most interested in how to integrate the competencies into clinical teaching, given a full curriculum of competing clinical topics. In addition to increasing their own knowledge about the competencies, respondents sought help in developing their teaching skills, with a particular interest in individualizing learning plans, developing innovative teaching methods for different levels of learners, and evaluating student performance and providing feedback. They reported that other faculty were skeptical about managed care and resistant to learning about the competencies until their practice experienced managed care pressures.

These observations were supported by the evaluation. Specifically, participants reported learning the most about new content areas (health care systems, systems-based care, quality improvement) and new skills, such as evaluating course objectives, designing teaching methods to meet objectives, and giving feedback. While the participants were seasoned teachers, they had not previously learned to plan and implement educational programs in an organized and effective manner.

(4) Because many of the managing care competencies are interrelated in clinical practice, teaching and learning about any one of them is an opportunity to teach indirectly about the others.

When asked to rank order the top three competencies to be covered in a faculty development program, our respondents thought that the competencies were so interrelated that it was difficult to consider them separately. Although our program focused on teaching quality improvement and cost-effectiveness, we structured the content and teaching experiences to demonstrate the relationships between the competencies in clinical practice and in teaching. As evidence of the interrelatedness of all the competencies, participants’ confidence in their ability to teach health care systems and system-based care, issues that we did not directly address, was also increased by the end of the program.

(5) To be successful in teaching new topics, such as the managing care competencies, faculty need not only to increase their mastery of the new content and of teaching methods but also learn how to be change agents in their schools.

Recognizing that the backlash against managed care has created a challenging environment for medical education around managing care, we sought faculty with responsibility for curriculum and faculty development, interested in the topics, and thus most likely to take on a change agent role. In a hostile environment, being a master teacher or a master of the new content may not be sufficient to create curriculum change.

We designed the program to increase participants’ expertise in curriculum development, clinical teaching methods, and evaluation related to quality improvement and cost-effectiveness. In addition, we developed workshop sessions and readings on organizational and behavioral change topics such as being a change agent at

Table 2

Methods Used to Teach Quality Improvement and Cost-effectiveness

Lectures
- What every clinician needs to know about quality improvement and cost-effectiveness
- Principles of teaching and learning, such as developing learning objectives and principles of program evaluation

Large-group Discussions
- Identify and develop curricula for five content areas about what trainees need to know about quality improvement and cost-effectiveness
- Describe and strategize about the opportunities and challenges the participants’ proposed programs face at their institutions
- Invent innovative methods for faculty development

Small-group Exercises
- Develop learning objectives (knowledge, skill, attitude) for an identified content area within quality and cost-effectiveness
- Define instructional methods most appropriate to meet each objective
- Describe measurable attitude, knowledge, and skill objectives in one key content area, and design an evaluation plan to measure whether programs met these objectives
- School-based teams with similar projects work together to refine their proposed programs. Each team presents its project, then listens while other participants analyze its strengths, weaknesses, opportunities, and threats (SWOT), and suggest modifications when appropriate
- Consult groups discuss progress in developing teaching innovations at home, using stages of curricular change framework presented in first workshop
- Objective Structured Teaching Exercises (feedback, quality improvement seminars, leading small-group discussion, seizing the moment in clinical teaching, teaching patient-provider communication around cost)
- Teaching skills workshops (ethical dilemmas around cost, using provider profiling data to teach about cost, talking with managed care organizations about cost and quality improvement, reading the medical literature around cost)

Reflection
- Quiet reflection on modeled teaching methods. Participants record how they might use these methods in their own teaching
- Oral review of teaching methods modeled to identify the content perceived to be useful at home institutions and to describe how participants might modify modeled methods when using them
one’s own school or clinical setting and using education to change clinician behavior.

(6) Active learning methods, in which small groups of participants practice handling specific teaching challenges, are an especially effective approach to learning among seasoned clinicians.

The literature on faculty development and continuing education programs suggests that programs should use active teaching methods and be led by respected colleagues—other physicians who teach in similar venues and whose opinions are perceived as based in real experience. In addition, participants should have the opportunity to try out their new skills and then receive feedback. Table 2 describes the methods we used to teach quality improvement and cost-effectiveness.

Practicing teaching skills together with learning about the content makes the concepts more meaningful. One of the most effective teaching exercises in the program was the Objective Structured Teaching Experiences or OSTEs. Project faculty led small groups of participants though several 30-minute exercises simulating teaching quality improvement, cost-effectiveness, and related competencies in the clinical setting. Participants practiced their teaching skills with this new content and then received immediate feedback from the workshop faculty and other participants. Several participants utilized these OSTEs soon after they returned to their home institution to teach other faculty.

(7) Pairing academic and community-based faculty from the same institution expanded their perspectives on their institution’s needs and possibilities and provided local support in an environment that is skeptical of, if not hostile to, managed care.

Recognizing the participants’ needs for support in making curriculum change, we created a partnership between academic and community faculty by asking the schools to nominate academic and community faculty pairs. Being part of a nationally constituted group of faculty scholars, engaged in the same challenging enterprise, can add legitimacy to their role as change agents.

To create a sense of community, we kept the same faculty together in small-group sessions in the two workshops, grouped faculty together by their competency interest areas, and created a program Web site to facilitate communication among faculty and participants between the workshops.

(8) Faculty may find curriculum change more worthwhile if they are able to turn their experience into scholarly works such as published descriptions of new programs or evaluations of educational interventions.

Clinical faculty frequently feel that the time they put into an educational innovation detracts from their other academic duties—ones for which they expect to be promoted. We encouraged turning one’s teaching into scholarship by discussing strategies for developing presentations and publications from their teaching experiences and ongoing evaluation or assessment efforts. Several participants found this immediately usable as they secured funding for small teaching grants or prepared presentations for local meetings.

(9) Combining undergraduate and graduate medical faculty seemed to add value to the extent that somewhat different approaches are used to teach at the two levels and to the extent that the participants came with different backgrounds because of exposure to their respective national programs.

Our program paired undergraduate faculty from UME-21 with residency program faculty from PQE. In many ways, this was a natural combination since most of these faculty attend the same hospital rounds and teach both medical students and residents in their practice setting. Moreover, medical students in the clinical years and residents work closely together, usually on the same clinical teams, and are part of a continuum of professional development.

Many participants commented that the combination fostered cross-fertilization and enhanced their understanding of the continuum of medical education. In the evaluation, there was no significant relationship, at any of the three measurement periods, between participants’ self-reported knowledge and skills and their UME-21 or PQE affiliation.10

(10) Faculty need time to absorb new concepts, try them out, get feedback, reflect on the learning, and talk with others, to feel confident integrating the changes into their clinical teaching repertoire.

The longitudinal program design, with the pre-, mid, and end-program activities, was intended to extend the effective period of learning by encouraging participants to prepare for the workshops in advance and then practice what they learned at their home school. We set up the program Web site after the first workshop to share program materials and encourage personal and electronic networking among the participants.

We designed the program in a train-the-trainer model so that participants would not only enhance their own knowledge and skills in curriculum development and teaching methods but also have the ability to teach these new skills to other faculty at their home school. To enhance the likelihood that these changes would stick, we recruited physicians already committed to (and responsible for) teaching programs but not as yet experts in the managing care competencies.

In the 2 months between the first and the second workshops, participants worked at home on designing local programs, convincing others to undertake the program, and trying out some new teaching techniques. To get change started in these new topics, faculty found the local curriculum change process more accessible and less intimidating than contemplating school-wide changes.
Programs spread out over an extended period of time have a greater potential to create “sticky” change in these new teaching behaviors by allowing for more teaching, networking, and evaluation. It also allows more flexibility to use the lessons learned from earlier workshops in designing later programs.

Conclusions

Academic medicine must invest substantial effort and overcome formidable barriers if it is to develop faculty who can prepare physicians in training for the current environment of medicine. New competencies and perspectives have been added to the traditional agenda of medicine. While many of these have been associated with “managed care” and therefore resisted by faculty, they are part of a new professionalism, and each has a valid purpose whether or not there had been a managed care.

We were able to identify clinical faculty who were willing to devote a great deal of effort to learning about the managing care competencies and how to teach them to their faculty peers. Participants in our program were from schools that were selected for their commitment to curriculum change, by membership in UME-21 and PQE, and, therefore, not representative of the nation’s medical schools as a whole. Nevertheless, our experience establishes that some faculty are interested in learning about new competencies and new teaching methods and being change agents in their home institutions. They found this activity compatible with their clinical orientation and responsibilities. We hope other faculty development programs will take up this agenda, in their own ways, to close the gap between the new environment of clinical practice and medical education.

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References

### APPENDIX 1

**Useful References for Teaching the Managing Care Competencies**

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<tr>
<th>Competency</th>
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• Sabin JE. How to teach residents about ethical managed care—even if the mention of “managed care” makes your blood boil. Harvard Rev Psychiatry 1999;7:64-7. |
| The ethics of managing care                    |                                                                                                                                                             |