Family Medicine Curriculum Resource Project: The Future

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Under contract to the Health Resources and Services Administration (HRSA), the Society of Teachers of Family Medicine (STFM) created an undergraduate medical education curricular resource designed to train physicians to practice in the 21st century. An interdisciplinary group of more than 35 educators worked for 4 years to create the Family Medicine Curriculum Resource (FMCR). By consensus, the Accreditation Council for Graduate Medical Education (ACGME) competencies were adopted as the theoretical framework for this project. The FMCR provides materials for the preclerkship years, the third-year family medicine clerkship, the postclerkship year, and faculty development, as well as guidance for integrating topics of special interest to the federal government (such as, geriatrics, Healthy People 2010, genetics, informatics) into a 4-year continuum of medical education. There are challenges inherent in implementing each component of the FMCR. For example, can the ACGME competency-based approach be adapted to undergraduate medical education? Can the densely packed preclerkship years be adapted to include more focused effort on developing these competencies, and whose job is it anyway? What is “core” to being a competent clinician, and what information can be obtained when needed from medical informatics sources? Will family medicine educators embrace the FMCR recommendations for their third-year clerkships? Will exit assessment of the competency levels of graduating medical students be achieved, and can it make them more capable residents? Can faculty in different clinical and educational settings integrate the teaching of “how to learn” into their repertoire? How will faculty development innovation progress in a time of increasing emphasis on clinical productivity? Developing a common language and adoption of core competencies for all levels of medical education is imperative in a society that is focusing on improving health care quality and outcomes. The FMCR Project has developed a curricular resource to assist medical educators in this task. The challenge for the future is to measure how the FMCR is used and to ascertain if it has an influence on better patient and system outcomes.

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The Health Resources and Services Administration (HRSA) contract (HRSA Contract #240-00-0107) specified that the Society of Teachers of Family Medicine (STFM) create an undergraduate medical education curricular resource that could be used to train physicians to practice in the rapidly changing 21st century health care delivery system.

This article is the last in a series of papers designed to provide an overview of the Family Medicine Curriculum Resource Project (FMCERP)—its purpose, process, and products. The papers detail (1) the rationale for using the Accreditation Council for Graduate Medical Education (ACGME) competency structure as the theoretical framework for this curricular resource to explicitly link medical student education with residency training and thus effect a consistent, conceptual continuum, (2) curricular resources for preclerkship education, (3) the preclerkship years, (4) the third-year clerkship, (5) the postclerkship year, (6) the faculty development modules, and (7) the additional resources for integrating topics of special interest to the federal government into the continuum.
training and competencies for medical students entering the third year of training, (3) curricular resources for educators during the third-year family medicine clerkship, (4) curricular resources detailing opportunities for competency development during the fourth year of medical school, and (5) suggestions for faculty development innovations needed to accomplish these important changes. This final paper will summarize the challenges raised in each of these papers and reflect on how these challenges might be addressed, so as to guide future implementation of the resource and form the basis for educational research.

A Theoretical Framework for FMCR

Through a select literature review and a series of reflective exercises, the project’s executive and advisory committees addressed the question: What should curricula for 21st-century physicians contain? The federal contract called for a theoretical framework on which to base the curricular resource. From these processes emerged significant concordance on what knowledge, skills, and attitudes physicians must possess to practice in the current and continually changing health care environment. This compendium of desired competencies was congruent with that of the ACGME competency framework. By selecting the ACGME competencies as the theoretical framework for the FMCR, the committees created a linkage between undergraduate medical education and graduate medical education, addressing the artificial segmentation currently existing between the two. This construct alsoallows educators to move from time-linked, block education of medical students toward a vertical and integrated approach to education of students in critical curricular areas.

Two critical issues related to the use of the ACGME competency framework in undergraduate medical education are: (1) How can the ACGME structure be incorporated into existing curricula in a given medical school? and (2) Given that the ACGME competencies were designed for graduate medical education, how can they be applied to learners at lower levels of learning? To integrate the ACGME competency concept into undergraduate medical education will require consensus at a national level that competency is the goal of the educational process and that those detailed in the ACGME listing are appropriate. The Institute for Improvement of Medical Education at the Association of American Medical Colleges (AAMC) has defined many of these competencies as critical ones and is developing an action plan to address the need for greater accountability in medical education. Additionally, at each school, curriculum committees must adopt this structure and move toward creating competency-based objectives, which are appropriate for the level of the learners. Issues of assessment remain a challenge, but individual schools are leading the way with innovative approaches to evaluation.

Ultimately, the performance of future physicians will be the mark of competency, and the science of measuring patient outcomes is rapidly advancing, utilizing the capabilities of the electronic medical record, and spurred by initiatives of the federal government and other payors to demonstrate better outcomes. If medical student curricula are structured to comply with the ACGME competencies, there exists the potential to actually create a continuum of learning across the many years of formal medical education. The key opportunity in educational research is to test individual programmatic utilization of competency-based curricula and to move toward more effective methods of producing better trained physicians, whose care results in improved patient outcomes.

Prerequisite Competencies for Students Entering the Third Year of Medical School

This component of the FMCR Project was originally designed to allow family medicine educators to work with their pediatric and internal medicine colleagues to define competencies and skills levels required of students entering the third year of undergraduate medical education. Indeed, the Collaborative Curriculum Project (CCP) evolved into a true collaboration among these three disciplines. There was remarkable consistency in what each discipline felt students should bring to the clinical phase of their education. The group created a detailed list of competencies that students should acquire to enable maximal learning during the second half of medical school education. They focused on clinical competencies, emphasizing those at the level of the whole person or higher (dyads, families and other groups, communities, and societies).

This interdisciplinary group noted several challenges to implementation of the CCP recommendations. They asked the following questions: (1) Who is responsible for teaching these broad competencies in the first 2 years—one discipline or multiple disciplines? and (2) Given their importance, should the competencies be taught in multiple places in the curricula for maximal impact? Ultimately, the challenges were discussed but not tackled by the group because of complex issues of time and curricular space in the densely packed first 2 years of medical school curriculum. To address this issue, medical educators need to critically ask how much basic science and clinical education, along with the “nonmedical knowledge-based” competencies, are needed to train physicians to practice in the 21st century, and when should these concepts be taught? With the continuing explosion of medical knowledge, it is important to determine what is “core” to being a competent clinician versus what can be obtained with medical informatics support to address a given clinical situation?

Accomplishing these challenges will require consensus by national educational and accrediting bodies, eg,
the Liaison Committee on Medical Education (LCME), as well as among decision makers at individual medical schools. There is evidence of activity toward addressing this challenge—the Institute for Improvement of Medical Education of the AAMC is working to update LCME accrediting rules, and individual medical schools are engaged in curricular innovation along these lines.

The Family Medicine Clerkship: A Matrix Approach to Teaching Competencies in Family Medicine

FMCRP’s initial intention was to broaden and deepen the curriculum guidelines for the third-year family medicine clerkship published in the early 1990s. The process led the workgroup to create a matrix curricular structure, merging the ACGME competencies, core family medicine principles, and family medicine themes and included recommendations from the Future of Family Medicine (FFM) report from 2004. The discipline’s core principles and themes are taught by focusing on commonly encountered illnesses. This matrix approach enables teachers to adapt this curricular resource to their unique needs, resources, and circumstances.

The key challenge for this FMCR component relates to the changing landscape of the discipline itself. The FFM report describes a direction for the future and areas where family medicine can become a vanguard for patient care experiences. Designed to incorporate these recommendations, it is critical for evaluation of this component to catalogue how the product is being adapted in individual schools and how effective it is in improving educational outcomes. STFM must lead this initiative to assess how educators are using this resource to influence clerkship goals, methods of teaching, and educational outcomes. As internal medicine and pediatrics effectively used similar curricular products developed in the 1990s to drive change in their clerkships, family medicine educators must do the same.

The Fourth-year Conundrum and Challenge

The challenge to effectively enhance learning opportunities during the fourth year of medical school is universal to all medical schools. The original contract included the mandate to develop a resource to address this longstanding situation. A literature review and key informant interviews of graduate medicine educators suggested that there be enhanced emphasis on core competencies of medical school graduates so they could successfully move to their next training phase. The competencies that the FMCRP recommended for preparing students to enter the third year of medical school were reframed, at a higher level of mastery, for the next transition and could serve as an exit assessment strategy for the entire 4 years of medical school. From the residency programs’ perspective, this competency assessment process could also be used as entry criteria and a way to identify those beginning residents who need targeted “tune-ups” in areas of weakness.

Challenges for the future relate to whether medical schools can use a competency-based educational strategy to more effectively structure fourth-year student experiences and actually design exit assessments based on these competencies. Additionally, can residency educators use a similar methodology to assess entering learners to define early in their graduate training areas of weakness for increased emphasis? Educational research in both domains is needed to ascertain how this component of the resource is being utilized and the impact it has on educational outcomes.

Implications for Faculty Development

The federal contract called for discussion of faculty development required for implementation of the FMCR. Faculty development strategies must take into account the nature of the clerkship setting, as well as the ever-changing practice environment. It is imperative to focus learning on how to learn continuously rather than on mastering the current body of knowledge. Some assumptions that will direct future faculty development efforts include: (1) learners must master competencies throughout their lives, (2) students need to learn how they and others learn, and (3) teaching must focus on how to learn in the future as well as what to learn for the present.

The major challenge focuses on what organizational changes are needed to facilitate the shift from “present learning” to “learning how to learn”? What faculty development strategies are needed to accomplish development of these new teaching competencies? Given the diversity of teaching settings, how can faculty development be conducted for preceptors in each unique environment, and what are the implications for the productivity orientation in many of these “clinical laboratories?” The FMCR sets an agenda for faculty development innovation and research. Additional challenges relate to resources needed to support the medical education enterprise.

Conclusions

It has been more than 6 years since the original HRSA contract was awarded to STFM. The health care industry continues to develop innovative approaches to medical care and treatment. The uninsured/underinsured population continues to grow, while the population becomes increasingly diverse. Emphasis is being placed on patient and system outcomes, but this is a “moving target” that places emphasis on adequately training physicians who can meet the demands of those patients and systems. The FMCRP has attempted to use a central conceptual structure (ACGME competen-
cies) to link student teaching with residency education and beyond. These competencies do incorporate the traditional knowledge, skills, and attitudes at the foundation of the medical education continuum but go far beyond—developing curricular approaches to achieve education with the broader goals of serving not only patients and but also populations. This resource can meet family medicine’s needs, but it is more than that. It is the product of an interdisciplinary team intent on crafting a new direction for the education of all future physicians.

The recent Institute of Medicine report, *Health Professions Education: A Bridge to Quality*, has established a vision for programs involved in clinical education of health professionals.12

All health professionals should be educated to deliver patient-centered care as members of an interdisciplinary team, emphasizing evidence-based practice, quality improvement approaches, and informatics.

This report calls for a competency-based approach to education—an approach that will generate information on outcomes of the educational process as well as outcomes related to better patient care. The report suggests that developing a common language and adoption of core competencies is imperative to quality improvement. It further suggests that the oversight processes need to focus not only on the competence of new graduates but also on continued competency of practicing clinicians.

One part of this process involves reengineering the medical education continuum. This will require leadership within educational institutions and those regulatory entities that govern the accreditation process of medical schools and residencies, as well as the certification and licensure of physicians. There must be continual documentation of successful reform strategies. Ultimately it is important to link evaluation of educational effectiveness to patient outcomes. The FMCRP has linked medical student education to residency education through the ACGME structural framework, using a competency-based approach to delineating the goals and objectives of the educational process. The challenge for the future is to measure how the FMCRP resource is utilized by medical educators and whether its incorporation into medical education does affect better patient and system outcomes.

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