

Accreditation Council for Graduate Medical Education

EDITOR'S INTRODUCTION

The Accreditation Council for Graduate Medical Education publishes the **ACGME Bulletin** four times a year. The Bulletin is distributed free of charge to more than 12,000 individuals involved in residency education, and is also available on the ACGME's world wide web site (www.acgme.org) for viewing and printing. The ACGME receives and publishes letters to the editor in the interest of furthering dialogue about accreditation, program quality and matters of general interest in residency education. Inquiries, comments or letters should be addressed to the editor.

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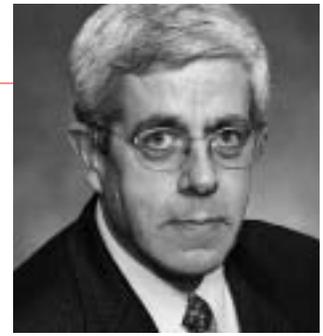
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Real Change

What does real change look like? The answer may be the overarching theme of this special issue of the *ACGME Bulletin*, devoted to the application of the general competencies to resident education and the maintenance of competency for practicing physicians. In early 2004, there is a sense that the duty hour standards implemented six months earlier are producing significant changes in residency program and teaching institutions. Prominent as these appear to be, application of the general competencies, which began in 1997 and was more formally incorporated into the accreditation process in 2002, has the potential of bringing more profound, far-reaching change, as programs, residents, practicing physicians and others become aware of power of outcome data in reformulating graduate and continuing medical education to focus on what is essential to high-quality medical practice.

The articles discussing the change brought on by the use of the general competencies culminate in the piece by Dr. Leach exploring when change can be considered an improvement, and the article by Dr. Swing posing the question how we recognize when change is deep, consequential, and lasting, and how we appreciate the mileposts on the way to a fully-realized outcome-based approach. Change also is approached in a pragmatic fashion, and several articles describe the implementation of the competencies in residency education and board certification. The article by Dr. Egan begins the process of soliciting contributions from residents related to the implementation of the general competencies, and she writes from the perspective of the group whose education is undergoing profound change as it is increasingly based on outcomes. The issue concludes with a point-counterpoint debate about the effect of duty hour limits on professionalism, one of the six competencies. Change can be large or small, slow or fast, and all these attributes are apparent in this collection of articles. We hope the readers of this issue will reflect on the "real-ness" of the change resulting from the application of the general competencies. ■

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Shifting from Process to Outcomes in Residency Education: How Will We Know that Change is an Improvement

David C. Leach, MD

In making any change it is said to be useful to consider three questions: “What change is going to be made?; what are we doing now is so good that we want to drag it into the future?; and how will we know that the change is an improvement?”¹ Much has been written about the change associated with shifting to an accreditation model based on educational outcomes.² In addition, innumerable clarifying conversations have deepened the community’s understanding of resident formation, the relationships that support it, and what should be preserved or strengthened as we go forward. But what of the last question – when all is said and done, how will we know that this change has been an improvement?

Parker Palmer has said: “At the end of my life I may or may not be able to claim that I have been effective, but I hope I will be able to say that I have been faithful.”³ Fidelity to deeply held inner truths and to emerging realities is important to Parker and also to those involved with the ACGME initiative to move accreditation to an outcome-based approach. Residency formation involves integrity and courage, and the “creation of a space in which obedience to truth is practiced.”⁴ The “product” of residency goes beyond a physician who can demonstrate the knowledge and skills needed to care for patients. Society declares us a profession because of our values as well as our science. Evidence, both universal and particular, as in the science and the art of medicine, requires discernment and integrity. It depends on habit as well as capacity. As new patterns emerge in the twin sciences of clinical practice and disease biology, we need to accept and integrate those emerging truths into our practice. The traditional values that inform medicine insist on fidelity and effectiveness.

Similarly, determining if change has been an improvement involves both discernment and integrity. We tend to see what we are looking for, so it is appropriate to anticipate indicators of improvement. Four come to mind. Improved resident and program outcomes; enhanced functioning of the system; the costs involved; and the satisfaction of participants (residents, program directors, DIOs, RRC members, and the public) could all be used as indices of improvement. This is the classic value compass approach.

Four assessment tools have emerged as especially helpful for resident outcomes: a focused assessment of performance via direct observation; portfolios of clinical experiences; 360-degree evaluations; and cognitive tests of a variety of types. These techniques capture demonstrated skills and experience over time. They begin to probe whether residents have acquired

the habit of competence.^{5,6} Measurements of aggregate results at the program level can be used to judge a residency program’s effectiveness and create focus for improvement opportunities.

The functioning of both the accreditation and the larger medical education systems offers another set of insights. It is always easier to add than to delete, especially for accrediting bodies. The Japanese offer a word to characterize this phenomenon: MUDHA: work without a product, or wasted effort. Accreditation is full of MUDHA; change that is an improvement should reduce MUDHA. RRC members can attest that it takes about 40 hours of volunteer time to review programs before each meeting, in addition to the time of the meeting itself. RRC members devote about two months per year of volunteer time in this work. To respect their time, and the time of program directors, site visitors and others who are part of the accreditation process, the system must be changed. Assessments that may help may be as simple as tracking the time needed to prepare for and review programs, time for program directors, RRC members, site visitors, and other ACGME staff, and looking for MUDHA and opportunities to reduce it. Another effort may involve a systematic review of the accreditation process and the quality of decisions for each RRC by the ACGME Monitoring Committee. The costs associated with this change entail time and money. Metrics for both are relatively easy.

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Satisfaction of the participants in residency education and in the accrediting apparatus is another important indicator whether change is an improvement. Medicine and medical education are noble professions; done well they can produce joy in work and learning. However, when daily work conflicts with core values, serious unhappiness results. Systematic sampling of satisfaction on the part of program directors, DIOs, RRC members, residents and the public can inform our work.

So how is it going? We are now midway through a journey that began in 1997 and should be nearing maturation by 2009. We are in phase II of IV, a phase in which the task is to sharpen the focus and clarify the definition of the six competencies. Phase III will link good learning with good health care, and Phase IV will recognize benchmarks, and enable

performance excellence models, and continuous improvement of the work of residency programs. At this point, clarity is emerging about several of the competencies. The American Board of Medical Specialties and ACGME have sponsored joint symposia on interpersonal and communication skills, and on professionalism, and the ACGME in conjunction with the Institute for Healthcare Improvement (IHI) has held annual conferences inviting program directors to share their experience with practice-based learning and improvement, systems-based practice, and professionalism. The next of these conferences in

“Programs need more flexibility to adapt intelligently to their particular environment and available resources.”

late 2004 will explore medical knowledge. If we view this process through the lens of Everett Rogers’ principles for how change is disseminated, the early majority is now joining the early adopters, as the conversations get deeper, less abstract and more rooted in real experiences.⁷

This initiative was informed by three principles: 1) Whatever we measure we tend to improve; 2) Programs need more flexibility to adapt intelligently to their particular environment and available resources; and 3) Public accountability should be enhanced. How will we know that this change has been an improvement? The simple answer is that programs will graduate residents who have actual rather than just potential competence, program directors and DIOs will have needed flexibility to adapt to their particular environment, the costs in time and money of accreditation will be reduced, and the public will have greater confidence in the process and outcome of medical education. ■

¹Batalden, personal communication, 2000.

²Extensive information on the ACGME Outcome Initiative can be found at <http://www.acgme.org>

³Palmer, Parker J. Comments at the “PJP Courage To Teach” Awardees retreat at the Fetzer Institute, May, 2002.

⁴Palmer, Parker J. *To know as we are known*. San Francisco, Harper, 1993.

⁵Epstein RM, Hundert EM. Defining and assessing professional competence. *JAMA*. 2002 Jan 9; 287(2): 226-35.

⁶Leach DC. Competence is a habit. *JAMA*. 2002 Jan 9; 287(2):243-4.

⁷Rogers EM. *Diffusion of Innovations*. 4th edition: The Free Press, New York, NY; 1995.

Does the Outcome Project Produce Change That Matters?

Susan Swing, PhD

Five years ago the ACGME adopted program requirement language for the General Competencies and educational outcome assessment, and for the past 18 months, these requirements have been in effect for accreditation purposes. With increasing frequency and in a variety of ways, we are being asked to report on results of the Outcome Project: “What are the effects of the General Competencies?; What successes have occurred?; Are the results worth the effort?; Do we have better doctors?”

None of these questions is easy to answer. Still new, incomplete, and/or progressively improving educational activities, a limited database of detailed and accurate information, and the methodological difficulty of establishing causality in complex settings all pose challenges for rigorous inquiry and definitive answers. With this article, I begin a set of reflections on the effect of the Outcome Project, framed by the general question, “Is the Outcome Project producing change that matters?” In the final analysis, change that matters is deep, consequential, and lasting. At the same time, in no way does this diminish the significance of interim mileposts the Project is reaching along the way.

Changes to the conversation about health professional competence

The joint ACGME/American Board of Medical Specialty (ABMS) initiative that defined six domains of general competency followed other similar projects. Two projects in Canada (CanMeds and Future Physicians of Ontario) and the Association of American Medical College’s (AAMC’s) Medical School Objectives Project (MSOP) defined roles and attributes for physicians in the 21st century. Evidence suggests that the ACGME/ABMS work has provided critical visibility and momentum to efforts to change the conversation about what it means to be a good physician.

Numerous organizations, including certification boards, the Accreditation Council for Continuing Medical Education (ACCME), Council for Medical Specialty Societies (CMSS), the American Osteopathic Association (AOA), and the Institute for Healthcare Improvement (IHI), have adopted or endorsed the Competencies. Another organization, the National Center for Healthcare Leadership, modeled its initial set of competencies for health care administrators after the General Competency domains. With the recent IOM recommendations for health professions, a number of competency components (evidence-based practice, inter-disciplinary teamwork, quality improvement and informatics), have been catapulted even further into the national conversation and limelight.

In shaping the ACGME competencies we listened to our stakeholders – patients and patient advocates; medical educators with expertise in the competency domains; government agencies; payers and health care leaders – as they emphasized the importance of communication, ethical behavior, cultural competence, quality improvement, evidence-based practice, and patient-centered care. From their perspective, is including these competency areas among potential powerful accreditation and certification processes a change that matters? I can only

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guess that it is. With considerable assurance I can say that the lexicon for talking about physician competence has changed. Granted, changing the conversation is one thing. Walking the talk is another.

Increasing educational focus

At the 2003 ACGME Educational Conference, attendees of the Outcome Project Focus Session were asked to describe one or two notable effects of implementing the competencies. A number of respondents indicated that the competencies and the Outcome Project have increased emphasis on education. Other respondents intimated that the conversation about education is deepening. Comments about these effects include the following: “The focus on education has increased. It has reminded programs that we are there to teach residents, not just get patients in and out of the hospital.” “We are re-evaluating what is important.” “There is more discussion about the concept of the competent physician.” “There is increased discussion about what we are producing.” “It is forcing program directors to rethink how they transfer behavior and interactive skills.” “There is increased awareness among faculty, residents and institutional leaders regarding what it means to provide quality education.” “It has encouraged faculty to think about new ways of teaching.”

Although many of these effects might also be regarded as mostly increased conversation, they nonetheless suggest an important step toward cultural or deep change. Coburn, in her examination of the scale of change, links deep educational change to alterations in teacher beliefs, including underlying assumptions about how students learn, expectations for students, and what constitutes effective instruction.¹

Building knowledge and community around medical education

Community allows for the pooling and sharing of knowledge and resources. In the current context, a potential effect of an educational community built around the competencies would be to raise the overall level of knowledge about the competencies, and the quality of instruction and assessment. By pooling resources, the community could develop better teaching and assessment tools, more efficiently, and at lower costs than individuals working alone. In the broader view, community may provide an on-going source of professional development and emotional support.

A number of comments from the Outcome Project Focus Session indicate that the requirements for teaching and assessment of the competencies have created opportunities for the formation of community in ways not previously realized. Following are some of those comments: “There is much more sharing among Program Directors.” “There is marked increase in exposure of residents to peers from other specialties. There is an increased sense of working together.” “There is cooperative development of approaches to the competencies.” “It got Program Directors talking about education issues together as a group, more frequently and earnestly.”

Specific examples of communities that exist with the goals of knowledge building and cooperative development of products are easy to find. At McGaw Medical Center of Northwestern University, a small cross-disciplinary group developed expertise in the competencies and parlayed their learning into a web-based resource center for use by all program directors. A working group of program directors in Obstetrics and Gynecology reviewed the literature, identified assessment tools, and modified

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them for use by all interested programs in their specialty. At a retreat attended by the majority of Emergency Medicine program directors, cooperative competency-specific work groups refined the definitions of the competencies and identified assessment tools appropriate for use in the specialty. Organizations and institutions, including Tufts Healthcare Institute, Mayo Graduate School of Medicine, and Medical University of South Carolina have sponsored educational meetings to develop knowledge in the domains of the competencies.

We do not know whether the sharing and cooperative activities will continue and ultimately contribute to an enhanced residency education community and ongoing building and sharing of knowledge about educational methods, learning, and assessment. In *Terms of Engagement*, Axelrod states that lasting change occurs through engagement.² In turn, engagement entails connecting people and creating communities for action. At the very least we can say that the competency initiative has put medical educators on the track to community.

Change that matters

Deciding whether a change is significant ultimately depends on the perspective and expectations one brings to a situation. Six years ago only a few sets of specialty program requirements included mention of competencies pertaining to quality improvement, informatics, communication, teamwork, ethics, cost-effectiveness, systems issues and responsiveness to diversity. Today, the General Competencies exist as a common program requirement. Conversations around the competencies are widespread and sometimes deep. Resource development is underway, in many cases through cooperative efforts that build and celebrate community. This is the groundwork for producing better doctors. This is change that matters. ■

¹Coburn, C. Rethinking scale: Moving beyond numbers to deep and lasting change. *Educ. Researcher*. 2003;32:3-12.

²Axelrod, R. *Terms of engagement: Changing the ways we change organizations*. San Francisco: Berrett-Koehler Publishers, Inc., 2002.

The ABPN Core Competencies: What They Are, Where They Came From, How They Are Being Used

Stephen C. Scheiber, MD, Dorteia Juul, PhD and Susan E. Adamowski, EdD

Introduction

Visitors to the American Board of Psychiatry and Neurology's (ABPN's) web site will find "Core Competencies Outline" listed on the general information page. Clicking on this option leads to a highly developed core competencies outline labeled Version 3.1. This article will review how the outline was developed and how it is being used, both by ABPN and organizations in neurology and psychiatry.

According to the ABPN, a core competency is an ability that can be demonstrated and that is central or "core" to the medical practice of psychiatry and/or neurology. Development of competency begins in medical school and continues in residency training and throughout the physician's career. Dreyfus and Dreyfus¹ formulated levels of competence that

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range from novice to expert. This sliding scale of competence is useful for conceptualizing professional development over time. The assessment of competency at the medical student level would be different from that at the residency level, and again different at the level of the practicing physician.

History of the ABPN core competencies outline

Using the six categories of general competencies agreed on by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), ABPN began its work on core competencies by building upon the work of the quadrads.² The quadrads were groups of four individuals, each representing a particular medical specialty. Each quadrad was composed of four members: a specialty Board representative, an ACGME Residency Review Committee member, a program director and a resident. These groups delineated the initial core competencies within each of the six general competency categories.

The ABPN planned a core competencies conference, with the goal of inviting leaders in the fields of psychiatry and neurology to react to the work of the quadrads and expand

upon it. Representatives from the ACGME, ABMS, American Psychiatric Association, American Academy of Neurology, American Medical Association, the Association of American Medical Colleges, additional specialty societies for psychiatry and neurology, and other significant groups were invited for a total of about 50 participants.

Background for the work at hand was provided by a keynote speaker, Nadia Z. Mikhail, MD, Director of Education of the Royal College of Physicians and Surgeons of Canada (RCPSC). She explained that the Canadian approach to core competencies was organized on the basis of seven different roles that physicians are called upon to play, namely medical expert, communicator, collaborator, manager, health advocate, scholar, and professional.³ After explaining how the competencies assigned to these roles were operationalized for training and assessment purposes, Dr. Mikhail challenged the group to see the six categories of core competencies currently before them as analogous to the seven roles delineated by the RCPSC and to similarly flesh them out beginning with the work of the quadrads.

Small groups, each made up of representative for psychiatry and neurology, studied the different categories of core competencies, discussed what should and should not be included therein, and finished with a more complete listing of competencies in each category than with which they began. Each small group was then challenged to decide for certification purposes when a given competency should be assessed. Stephen C. Scheiber, MD, Executive Vice President of the ABPN, stated that while he hoped the core competencies outline would be useful to the fields of psychiatry and neurology as a whole, the goal of the Board at this point was to gain input from the field as to what should be assessed for initial certification and through a Maintenance of Certification Program. The final result of this effort was a chart listing core competencies by category with a suggested time of assessment. Several important pieces of information came out of the discussions of the small groups. One was that each competency needed to be assessed more than once. The second was that initial assessment should not wait until the time of the certification examination. This point evolved into a continuing discussion regarding which competencies should be assessed in residency for initial certification purposes and optimal ways for achieving this.

Another key observation from the conference group was that two different methods were needed for listing the competencies within the six categories. Competencies in four of the categories were deemed essentially the same for both psychiatry and neurology. These categories were communication and interpersonal skills, practice-based learning and improvement, professionalism, and systems-based practice. Conversely, while there was some overlap of skills across the two disciplines of psychiatry and neurology in the categories of patient care and medical knowledge, each of these categories also required a specialty specific section.

Initial Certification and the core competencies

The ABPN Directors felt strongly that the core competencies outline should drive all aspects of the certification work of the Board. To this end, the content outlines for the Part I certification examinations were studied to make certain that all parts of them were covered in the core competencies outline. Initially, it

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appeared that the examination content outlines related primarily to the medical knowledge and, to a smaller extent, the patient care category of core competencies. A closer look revealed, however, that the questions in the current examination pool could be related to the other four categories as well. The ABPN Test Development Department, along with the physician-writers of the examination questions, are currently assessing all examination questions in the item bank to ascertain how they relate to each of the six core competency categories. When completed, this matrix analysis should provide excellent material for the further development of examination questions.

Maintenance of Certification and the core competencies

The ABPN Committee on Maintenance of Certification (MOC) is also using the core competencies outline as it develops a complete MOC program. There is a high degree of overlap between the six categories of core competencies and the four components of MOC: professional standing; self-assessment and lifelong learning; cognitive expertise; and performance in practice. For example, the MOC component of professional standing relates most directly to the core competencies involving professionalism, but other core competency categories also relate to professional standing.

To address practice-based learning and improvement, the ABPN MOC Committee has worked directly with some of its specialty societies to encourage CME programming in all six core competency categories. This work is expected to expand to other specialty societies in the future. To address cognitive expertise, the ABPN Test Development Department is planning to apply its matrix analysis to questions in the recertification item banks to assure that all six categories will be addressed in the recertification examinations. And last, but not least, as the ABPN MOC Committee plans for assessment of practice performance, all six categories of core competencies are expected to be addressed.

Conclusion

The ABPN is currently working through its subspecialty examination committees to develop core competencies outlines relating directly to addiction psychiatry, child and adolescent psychiatry, clinical neurophysiology, forensic psychiatry, geriatric psychiatry, and neurodevelopmental disabilities. Examination development for ABPN's two new subspecialties, vascular neurology and psychosomatic medicine, will emanate from core competencies outlines for these two areas.

The ABPN Core Competencies Committee realizes that the core competencies are meant to change as the fields of psychiatry and neurology grow and new knowledge is incorporated into practice. To that end, the committee has developed a form that is encouraged for use by anyone with a suggestion for changes in the outline. ■

Stephen C. Scheiber, MD, is the Executive Vice President of the American Board of Psychiatry and Neurology. Dortha Jaul, PhD, is the Vice President, Research and Development, and Susan E. Adamowski, EdD, is the Director, Assessment Projects and Communications of the ABPN.

Authors' note: *The latest version of the core competencies outline is posted on the ABPN web site, www.abpn.com. For e-copy of the core competencies chart listing the suggested times for assessment of all core competencies and/or a copy of the "Suggestion for Change" form, please e-mail Susan E. Adamowski, EdD, at the Board office (sadamowski@abp.com).*

¹Dreyfus SE, Dreyfus HL. A five-stage model of the mental activities involved in directed skill acquisition. Berkeley. U.S. Dept. of Commerce, 1980.

²The Neurology Quadrad consisted of Dr. Nicholas A. Vick representing the ABPN; Dr. Rosalie Burns representing the Neurology RRC; Dr. Wendy Peltier, the neurology program director at the Medical College of Wisconsin; and Dr. Shannon Kilgore, a neurology resident. The Psychiatry Quadrad consisted of Dr. Glenn C. Davis representing the ABPN; Dr. Andrew Russell representing the Psychiatry RRC; Dr. John Herman, the psychiatry program director at Massachusetts General/McLean Hospital; and Dr. Mara Goldstein, a psychiatry resident.

³*Skills for the New Millennium: Report of the Societal Needs Working Group, CANMEDS 2000 Project Report.* Ottawa, Ontario. The Royal College of Physicians and Surgeons, 1996.

Improving Faculty Confidence for Teaching Practice-Based Learning and Improvement and Systems-based Practice

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The ACGME Outcome Project has led to re-evaluation of faculty development needs related to teaching the six competencies at many institutions. The Office of Educational Development and Research at the University of Minnesota Medical School sponsors workshops on a variety of topics. These are available to all Academic Health Center Faculty. This article discusses the content, structure, and assessment of a workshop designed to improve participants' confidence and skills in teaching key components of two core competencies: Practice-Based Learning and Systems-Based Practice. The workshop is conducted as an interactive group session, with multi-media demonstration and discussion of proven techniques with materials given to all participants for use in their own practice settings.

The workshop

The session begins with a discussion of the definitions of these two competencies and identification of barriers to their being taught effectively in ambulatory settings. The two barriers most consistently identified by participants have been lack of time in a busy clinical practice and lack of confidence in their own knowledge and skills in these areas. We then discuss core skills necessary to master Practice-Based Learning and Systems-Based Practice and propose that the tools demonstrated in each skill module will increase participant skills and confidence in their abilities to practice and teach these competencies. We discuss each module below.

Formulating clinical questions

The first module encompasses the identification of knowledge gaps related to the patient care process, and conversion of these knowledge gaps into solid clinical questions. To achieve this workshop goal, participants are shown a trigger tape of a learner presenting a patient case in the outpatient Primary Care Center at the University of Minnesota. We facilitate generation of multiple clinical questions and demonstrate use of the Population-Intervention-Comparison-Outcome (PICO) approach to help learners clarify their questions. The points are made that **any** clinical scenario is ripe fodder for clinical questions and that formulating, and addressing, clinical questions is a crucial step in engaging students and residents in practice-based learning. Our experience echoes that of Sackett, et al¹ in that, while we identify a multitude of clinical questions with learners, we rarely follow through all subsequent steps to find the best evidence, critically appraise it and apply it back to

this patient. This is often due to the barriers mentioned above. One method that has shown success in increasing our yield is use of Educational Prescriptions.² We provide participants with a modified form of this tool and demonstrate its use in formalizing a “learning contract” with a negotiated time table for follow-up and presentation of results. This method has dramatically improved the number of questions that are followed through by our students and residents. It also increases the interest levels of other practitioners in the clinic, through dissemination of both the PICO method and the “clinical pearls” learned through its application to actual cases.

Literature search strategies to discover the best evidence to answer questions

We then demonstrate the use of methodologic filters on Ovid Medline and PubMed to improve the quality and efficiency of literature searches. The presentations emphasize that filters can narrow the search from the millions of articles in Medline to a smaller number of high quality studies that use appropriate methodology to answer the clinical question posed. These may include a randomized controlled trial, systematic reviews or the literature or meta-analyses of the effectiveness of a given therapy. Several clinical questions generated in the initial exercise are then explored through literature searches with and without filters to demonstrate the impact on the number and quality of articles obtained. We also demonstrate other useful secondary sources of Best Evidence including the “Cochrane Database” and the “Evidence-Based Medicine” collection. Handouts are given illustrating the use of the PubMed clinical queries filters (built-in methodologic filters) and detailing how to save one’s own validated filters on Ovid Medline. On-line resources are shown from the following UMN Biomedical Library site: http://courses.lib.umn.edu/page.phtml?page_id+441. Participants are urged to share these handouts and resources with learners in their clinical settings. This section is one of the most highly rated of the workshop, for its practical nature. We have subsequently taught this section in our AV center, with each participant at a computer terminal to improve their ability to reproduce these searching techniques in their own practice settings.

Critical appraisal of the literature for its validity and usefulness

Teaching critical appraisal of the literature is difficult in the classroom, let alone the clinic. We demonstrate the use of a visual tool developed by Attia et al² for use in teaching the appraisal of randomized controlled trials. A laminated version of this tool is given to participants along with key discussion points and suggestions for its use. We also review the “User’s Guide to the Medical Literature Series” and the accompanying critical appraisal worksheets, which are available from the Internet. These tools are strongly recommended as a starting point for all learners to help guide them through the appraisal process.

Application of the evidence to individual patients

Application of evidence from large clinical trials to clinical decision-making for individual patients is difficult to teach. We begin this portion of the seminar with an example of the same “best evidence” that, when considered in decision-making for different patients, or the same patient in a different practice setting, leads to very different yet appropriate clinical decisions. A pediatric example is given involving use of “bag urinalysis” versus a catheter specimen in diagnosis or exclusion of urinary tract infection in infants with fever without a source. This example is used because practitioners have had strong opinions for or against this test and thus residents and students often see opposite practice patterns at different clinics and question which is the most evidence-based when in fact they may both be evidence-based. This discussion lends itself to use of a Venn diagram, showing the three components of a clinical decision; best evidence, values and resources. Participants are given this diagram with the same data on sensitivity and specificity of the test in the evidence circle, but one-half of the participants receives one set of “parents’ values” and “system resources” and the other half gets a different set. The group is then polled on which test they would use, bag urinalysis or the gold standard catheterization; it is clear that they make different decisions despite the “best evidence” being the same in each case. Discussion then focuses on demonstrating to the learner that the evidence is just one component in the “right decision” for an individual patient.

Finally, we focus on how to teach application of the “Best Evidence” to the wider health system. We use a question identified and answered by a learner in our clinic. One recent example involved the efficacy of both cognitive-behavioral therapy and medications in the treatment of post-partum depression. A study was found that reported the efficacy of both interventions. After presenting this information, we asked the learner what she thought was the greatest barrier to effective treatment of women with this condition and she felt it was identification of the condition. This led to an excellent discussion of the health care delivery systems that could be engaged to potentially improve screening ranging from patient education tools given to new mothers on discharge from the hospital, to template questionnaires given during routine well child care visits. Stimulation of this type of thought process was identified as a key step in engaging the learners in Systems-Based Practice. Many other examples have been used, from chronic disease management plans for asthma and diabetes to identification of smokers for targeted cessation counseling. A web site with a self-study project for students and residents guiding them from question formation through to the development of patient education tools also was provided as a resource. The web site location is: http://meded1.ahc.umn.edu/mededdocs/courses_y34/PCC/ebm_project/index.cfm.

Evaluation

We administered a survey with structured and open-ended questions to elicit participant viewpoints about the value of the seminar. Participants were also given a pre- and post confidence level questionnaire focusing on the skills addressed in the seminar.

Results

Participants' viewpoints about the value of the seminar were quite positive. Consistently identified strengths were that it was practical, interactive and provided teaching resources available for immediate use. The mean rating of overall educational value was 1.4, (with 1 denoting outstanding, and 5 denoting poor). There were statistically significant changes in confidence levels for almost all aspects of the practice and teaching of these practice-based learning skills as shown below.

Conclusion

We demonstrated that a brief faculty development seminar significantly improves confidence levels in the practice and teaching of skills integral to two ACGME general competencies: practice-based learning and systems-based practice. A large body of literature relates increased confidence levels to improved self-efficacy and subsequent increased likelihood of adopting new teaching behaviors.³ Thus, this intervention significantly increases the likelihood that participants will practice and teach these skills. The modular nature of each of the components of this workshop lends itself well to more in-depth focus in a particular area as directed by the learners. In subsequent sessions of this workshop we have let the participants set the agenda and adjust the time spent on each to better tailor the teaching to their needs. We have also incorporated these methods into our Internal Medicine "Residents as Educators Development" curriculum (developed by Heather Thompson, MD). The next, and more difficult step in assessment is determining the long-term outcomes of our intervention, including durability of the improvement in confidence levels, objective measures of increased teaching related to the competencies, and objective measurement of increased competency of the residents being taught and supervised by individuals who participated in the workshop. ■

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Authors' Note: *We would be happy to share the materials and methods used in this seminar with anyone interested in adapting them for their own program/institution.*

Faculty Development and the ACGME General Competencies

Rita Patel, MD

“On the index card, please write your name, your specialty, and your position. Then, list the six general competencies.” Early in the 2000–2001 academic year, this was a moderately difficult task for those in attendance at a regularly scheduled Graduate Medical Education Committee (GMEC) meeting. A brief 5-minute, “index-card” survey, provided valuable information and clearly identified for the GMEC members the need for faculty and resident education regarding the ACGME competencies.

The University of Pittsburgh Medical Education Program sponsors approximately 80 residency education programs, with a large number of community and tertiary-care teaching sites, and more than 1,200 residents. In any effort related to GMEC activities, and particularly with the ACGME competencies, it is important to include individuals from different practice environments, specialties and levels of experience, and involve them in the design of their own educational programs.

Developing a “master faculty”

The faculty development program at the institutional level includes 15 minutes at each GME Committee meeting. The presentations during this time focus on “best practices” related to implementation and evaluation of the general competencies, with presentations made by program directors and residents. Other activities include an annual interactive leadership conference designed by a Subcommittee on the General Competencies, and development of a cadre of “master faculty”, who are able to teach leaders in residency education (department chairs, program directors, coordinators and chief residents) about the general competencies to enlist the help of these groups in disseminating the competencies to faculty and the residents.

For residency education programs that are affiliated with medical schools, and have strong clinical departments, collaborative endeavors are very valuable, and benefit medical students, residents, and attending physicians. The members of the “master faculty” involved with teaching the competencies are experienced educators from multiple specialties with a record of involvement in the full spectrum of medical education. They have participated in medical student and continuing medical education courses as teachers; have served as directors of courses, clerkships or residency programs, or as advisors or mentors for learners. They include educational leaders from community medical centers and tertiary referral sites, and the members of this group are recognized in the university community for their teaching excellence with particular skill at facilitating interactive learning. Arrangements were made with the chairs of their respective departments, the chiefs at their clinical sites, and the Dean of the medical school to facilitate

¹Sackett D, Richardson WS, Rosenberg W, Haynes RB. Evidence-Based Medicine: How to Practice and Teach EBM. London: Churchill Livingstone, 1997.

²Sackett et al., 1997.

³Attia J, Page J. A graphic framework for teaching critical appraisal of randomized controlled trials. ACP Journal Club. 134(3):A11-2, 2001 May-Jun.

⁴Bandura A. Self-efficacy: Toward a unifying theory of behavioral change. Psycho Rev. 1977;84:191-215.

their involvement and provide protected time for participation in the preparatory sessions necessary for teaching in the GME Leadership Conferences.

A GME leadership conference

The annual *GME Leadership Conference* is one day of interactive workshop sessions, taught by the master faculty, focusing on topics of importance to individuals involved in residency education. The first conference was “An Introduction to the ACGME General Competencies.” Participants were assigned in 10-12 member groups and attended the workshop sessions in a different order, with two of the master faculty serving as facilitators for each workshop session. During each 45-minute session focusing on one competency, the following items were addressed: 1) the definition of the general competency; 2) methods of teaching and evaluating the general competencies in residency; 3) approaches to implement the general competency in the department; and 4) faculty development in the use of the general competencies. The second conference addressed evaluation of the “difficult” competencies: “Evaluating resident professionalism, systems-based practice and practice-based learning.” It also included a discussion of resident duty hours and their impact on residency programs. This year’s conference is titled “Integrating Graduate Medical Education and Patient Care,” and will feature sessions on Medical Errors and Patient Safety; Sleep, Fatigue and the Medical Provider; and Blending Resident Education and Patient Care. The members of the master faculty also are available as a resource throughout the year. Many of the master faculty and participants in the GME Leadership Conference became actively involved in their specialty organizations as consultants on the ACGME competencies after their involvement in the institutional program.

Prior to conferences, participants are required to complete a series of electronic mail “*tickler tasks*” to prepare for the meeting. These are weekly e-mails, sent approximately six weeks prior to the conference that focus on each competency. They are designed to introduce concepts and stimulate thought prior to participation in the meeting. Examples include the following questions: 1) describe the role of every health care provider with whom you have had contact today, and how you would teach a resident their roles, and how best to utilize these individuals’ services; 2) ask two residents what they think is the most useful component of residency training as it pertains to learning how to take care of patients; 3) describe two ways to evaluate resident performance as it pertains to medical knowledge; 4) describe two scenarios in which a physician demonstrates unprofessional behavior; 5) outline a process for incorporating Practice-Based Learning into your residency program; and 6) go to the ACGME web site for the general competencies and the Outcome Project and identify which method of evaluation of interpersonal and communication skills is believed to be the best.

Increase awareness of the competencies

In addition to the conference participants, electronic mail messages also were sent to hospital administrators; program coordinators; the medical school deans for student affairs, faculty affairs, continuing medical education, admissions and curriculum; practice plan executives, and hospital attorneys. The goal of this activity was to expose individuals who are not normally considered a part of the process of change in residency education to current issues, and at the very least, encourage appreciation and support of the time, energy and commitment required on the part of those who are.

It is important that both the faculty and the residents be educated regarding the general competencies. The goals of the faculty development program at both the departmental and institutional level are to: 1) develop faculty skills in teaching and evaluating the general competencies; 2) provide educational resources designed to facilitate the implementation of the general competencies; 3) build a group of educators skilled in faculty development; and 4) apply the expertise and resources developed in implementing the general competencies to other academic activities.

The first response from the faculty to the ACGME competencies was that it was “one more chore” required to maintain accreditation. At a time of increased clinical commitment and decreased resources, it was viewed as being particularly burdensome. Once key leaders were convinced of the merit of viewing resident education through the general competencies, and the potential to develop efficient and effective educational programs, faculty teaching skills and educational materials to address them, there was more enthusiasm for the project.

Make the competencies relevant to faculty

Making the competencies relevant and personal to individual faculty members is good advice for facilitating their dissemination. Most excellent teachers are excellent clinicians. An important step in this includes making the teaching and evaluation of the competencies more than a “bureaucratic” or “academic” function by demonstrating their practical clinical applications. An element of this can be descriptions of positive changes for patients, hospitals, processes, and departments due to the application of the general competencies. For instance, senior residents are required to complete a systems-based project. It involves identifying a frustrating clinical situation that interfered with optimal patient care, diagramming the sequence of events and the systems involved, proposing corrective actions, and presenting this to groups of the leadership that include chiefs, chairs, vice-chairs and administrators of the department. Faculty members serve as advisors/consultants for this project, and are aware of changes that have occurred as a result of this effort.

Be very, very considerate of time

Faculty time is very constrained, but many will attend brief (30–45 minute) educational sessions that are intense, specific and allow for mutual exchange of experiences, facilitated by an individual they admire and respect. Not all interactions need to

be formal: impromptu discussions that arise as a result of clinical situations can be one of the most effective means for individual faculty development. At the departmental level a combination of educational retreats and special faculty development sessions seem to be the most effective. The one-day educational retreats, held on a Saturday, were a series of interactive workshops and had the following themes: “Innovations in Education,” “Learning the Skills Necessary for Effective Teaching,” and “The Physician as Educator.” Workshop topics included creating educational objectives; understanding the learner; utilizing different teaching styles; applying Bloom’s Taxonomy; and demonstrating effective feedback. Most recently, one-hour faculty development sessions, held monthly throughout the year, have replaced the educational retreats. Examples of topics include: 1) resident recruitment, interviewing skills and the selection process; 2) conducting an oral board examination; 3) promotion and the teaching portfolio; 4) teaching in the simulator; 5) PBLD: how to write a case and facilitate a discussion; and 6) evaluating the general competencies. The most interactive and practical sessions receive the highest ratings. Attendance at the sessions is required for participation in the activity related to the session. For instance, in order to conduct an oral board examination for residents, faculty members are taught (during the session) how to write cases, methods of questioning, and evaluation of resident performance. Common examiner and examinee problems are described. An experienced examiner reviews the case written by the faculty member before its administration and evaluates him/her during an actual examination of the resident. Feedback is then provided to the faculty member regarding their performance.

Reward those who participate

Finally, it is important to reward those who participate. For individual faculty members, provide mentoring for the development of their academic careers in education, including support for promotion. Work with individuals one-on-one and help them develop their educational portfolios, so that they can “see” what they have accomplished, and use this as a basis for promotion. Create educational awards for the development of curriculum, an evaluation system, or clinical teaching, and present these when a majority of faculty, residents, and senior leaders are present. Meet with hospital administrators and department chairs and explain the importance of physicians as teachers to the clinical mission. Good education and supervision of residents ultimately results in good patient care, and requires the expenditure of time and money.

The majority of faculty understand the benefits of using the competencies as a structural framework to guide their teaching efforts in the provision of daily clinical care, pride themselves on being good teachers and doctors, and will cooperate with thoughtful efforts that help them improve. ■

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Board Certification and the General Competencies

Stephen H. Miller, MD, MPH

“There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things.”

Nicolo Prince Machiavelli

Almost 100 years ago, the concept of specialty examining boards to certify physicians was proposed in response to concerns about the quality of medical care delivered by self-designated specialists. Subsequently, in recognition of the commonality of purpose and a need for efficiency, several of the first certifying boards established the forerunner of the organization we now know as The American Board of Medical Specialties (ABMS). Today, the ABMS is an umbrella organization of 24 medical specialty boards with shared goals and standards for the certification of specialist physicians.

Certification by an ABMS Member Board signifies that a physician has successfully completed an approved educational program and an evaluation process, including an examination that is designed to evaluate the knowledge, skills and experience required to provide quality medical care in that specialty. Certification has long been accepted by the public and the profession as a good, albeit not a perfect, process to address the issue of the quality of medical care delivered by physician

“Certification has long been accepted by the public and the profession as a good, albeit not a perfect, process to address the issue of the quality of medical care delivered by physician specialists.”

specialists. However, questions have been raised as to whether physicians initially certified upon completion of their residency, maintain the ability and capability necessary to continue to provide quality patient care. To address this issue the ABMS Member Boards, in the 1970s, began to offer new certificants time-limited certificates and required periodic recertification by written examination.

In the late 1990s, it became obvious that written knowledge based recertification examinations were limited in their ability to assess the full range of competencies necessary and sufficient for the provision of quality medical care throughout the course of a physician’s career. Thus, in 1998, a new program, Maintenance of Certification[®], was developed and adopted by the ABMS and its Member Boards. It is broader and more

encompassing than recertification and based upon continuing evaluation of competencies believed necessary to practice medicine in the 21st Century.

Cognizant of its role as a stakeholder in graduate medical education, and that medical education was, or should, in fact be viewed as a continuum rather than an isolated learning opportunity, the ABMS in concert with the Accreditation Council for Graduate Medical Education (ACGME), developed a common set of six general competencies believed to be important for all specialists to possess and to maintain throughout their professional careers. These competencies are to be developed and/or refined and inculcated during residency training, evaluated during initial certification, and subsequently further refined, updated and re-assessed through participation in programs of maintenance of certification conducted by ABMS Member Boards. The six general competencies are: medical knowledge, patient care, interpersonal and communication skills, professionalism, practice-based learning and improvement, and systems-based practice.

Currently both the ABMS and the ACGME are developing and evaluating tools to measure each of the six competencies. In some instances, the same tools may prove useful for both groups; in others, they may require the use of different or modified tools to accommodate differences in the level of experience of a practitioner as opposed to a resident and the environment in which medical care is provided. Prior to utilization of any tools by the ABMS Member Boards and the ACGME in high stakes evaluations of training programs or individuals, the tools must first be demonstrated to be reliable, clinically valid, and economically feasible. The ABMS and its Research and Education Foundation (REF) are supporting research and pilot field tests to promote the use of appropriate tools for MOC which fulfill the criteria noted above.

Examples of these tools recently developed through the joint efforts of the ABMS and its Foundation include a Communication Assessment Tool (CAT) which, in conjunction with Professionalism Assessment Tools (PAT), will assess the interpersonal and communication skills and professionalism of diplomates with patients, medical colleagues, and other health care professionals. It is expected that tools will provide feedback to physicians regarding their performance and that programs for self-improvement will be developed by societies, academic health centers and others. Following completion of these self-improvement programs, reassessment will occur.

The major focus of MOC initially will be documenting improvement in physicians' practice performance. Documentation will be based on internal self-assessment but with some external assessment or audit by boards in accord with practice modules reflective of a physician's practice performance assessed according to local, regional and national benchmarks. Eventually if and when the tools are documented to be reliable and valid they will be used for quality assurance as well as quality improvement. ■

Professionalism in Perspective – Residents Reflect on Professionalism

Erin Egan, MD, JD

Professionalism has emerged as a hot topic in medical education in recent years. Although there are many different philosophical and ethical underpinnings to the increasing emphasis on professionalism in medical education, ultimately it needs to be understood as a practical issue for physicians in training. As residents, we need to reflect on our own role in both learning and teaching professionalism in order to ensure the success of any attempt at improving professionalism education. To recognize our contribution to this important endeavor, we introduce here the first of a regular feature in the Bulletin, in which residents and others involved in residency education will be invited to reflect on and discuss their experiences with learning and teaching professionalism.

Both undergraduate and graduate medical educators recognize professionalism as a core competency in medical education.¹ Different definitions of this somewhat amorphous concept have been proposed in an effort to facilitate the teaching of professionalism. In the document "Medical Professionalism in the New Millennium: A Physician Charter," the preamble states:

*"Professionalism is the basis of medicine's contract with society. It demands placing the interests of patients above those of the physician, setting and maintaining standards of competence and integrity, and providing expert advice to society on matters of health."*²

A MedLine search for the four years since the year 2000 produced 444 references for the keyword "professionalism."³ The topic has been discussed in a variety of medical specialty journals, the *New England Journal of Medicine*, the *Journal of the American Medical Association* and the *Lancet*.⁴

Most of us do not think about professionalism as relevant to our daily practice. However, "professionalism," as it is used in the context of medical education, involves professional etiquette and behaviors, ethical and philosophical undercurrents in practicing and teaching medicine, and core issues related to who we are as doctors. Professionalism can be discussed in terms of characteristics and values held by professionals,⁵ or the virtues desirable in professionals.⁶ It encompasses fundamental discussions that include the ethics of competence and self-limitation of practice scope, malpractice and medical errors, bedside manner, inter-professional communication, and social responsibility. It is a discussion of teaching and learning compassion, moral courage, accountability, and integrity. These are elements that form the fundamental basis of the practice of medicine. They impact every aspect of clinical care and medical education. Professionalism is about who we *are* and who we *should be*. It is inherently a crucial part of daily practice for physicians at all levels of training and practice.

A major step in professionalism education is to identify not only its meaning, but also to recognize its importance. We need to be increasingly aware of our own professional values and characteristics in the context of both improving our own professionalism and teaching professionalism by example. Many aspects of professional behavior are taught not through formal efforts at medical education but through professional interactions. Informal education processes in medical education and the “hidden curriculum” are important aspects of how trainees become physicians. The hidden curriculum is the agenda of behaviors, knowledge, and ideas not formally articulated or even acknowledged, but which exist as a critical component of medical education.⁷ Unfortunately, some evidence points to the fact that moral reasoning and ethical thinking decline across the continuum of medical education, possibly as a result of the values taught through the hidden curriculum.^{8,9}

While professionalism is, in part, learned through professional socialization and through observation and role modeling, it also needs to become formally integrated into the residency curriculum. Morning report cases and other

“Many aspects of professional behavior are taught not through formal efforts at medical education but through professional interactions. Informal education processes in medical education and the “hidden curriculum” are important aspects of how trainees become physicians.”

conferences involving professionalism issues, journal and book discussion, and other steps to mainstream professionalism into the existing educational approach at individual institutions should be another important component of professionalism education. Programs must now demonstrate competence in trainees as part of the accreditation process and so programs are looking at their curricula. Residents need to be involved in developing and implementing strategies to ensure competence in professionalism.

To develop and implement these strategies, an important aspect of resident participation in the evolution of professionalism education is for us, as residents, to articulate our observations on practical professionalism issues and to discuss the implications of our observations for improving professionalism education. We therefore hope to stimulate such participation and discussion through an open invitation to resident reflections on teaching and learning professionalism as an ongoing column in the *ACGME Bulletin*. Contributions should focus specifically on how professionalism has become real in the life of the contributor through cases that exemplified professionalism, results of efforts to teach professionalism, or other aspects of how professionalism finds its way into the residency education curriculum, hidden

or otherwise. Contributions should not exceed 1,000 words and should be sent as a word processing document (WordPerfect or MS Word) to iphilibert@acgme.org.

As residents, we must take up the challenge of making medical professionalism meaningful to ourselves as practicing physicians and most importantly, to the patients we serve. We hope residents will consider contributing to “Professionalism in Perspective” as a learning opportunity for themselves and the program directors, designated institutional officials, and other medical educators who read the *ACGME Bulletin*. We must learn from each other, and what better place to start than from our own experience. ■

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¹For the language of the ACGME competency on professionalism see <http://www.acgme.org/outcome/comp/compFull.asp#5> (accessed 1/2/04), the Learning Objectives for Medical Student Education, Guidelines for Medical Schools, Medical School Outcomes Project is available at <http://www.aamc.org/meded/msop/msop1.pdf> (accessed 1/5/04)

²“Medical Professionalism in the New Millennium: A Physician Charter,” Project of the ABIM Foundation, ACP-ASIM Foundation, and European Federation of Internal Medicine, *Annals of Internal Medicine* 136:3, 246, Feb 5 2002.

³Ovid Medline, keyword “professionalism,” search limited to publication date 2000-2004. Search performed Dec. 31, 2003.

⁴Examples of articles in these journals include: Epstein RM, Hundert EM, “Defining and Assessing Professional Competence,” *JAMA*. 287(2):226-35, 2002 Jan 9; Cruess RL, Cruess SR, Johnston SE. “Professionalism: an Ideal to be Sustained,” *Lancet*, 356(9224):156-9, 2000 Jul 8; Rothman DJ, “Medical Professionalism-Focusing on the Real Issues,” *New England Journal of Medicine*. 342(17):1284-6, 2000 Apr 27.

⁵The Professionalism Committee of Loyola University Stritch School of Medicine “Statement on Professionalism in Medical Education” available at: http://www.meddean.luc.edu/depts/bioethics/resources/prof/statement_prof.htm (accessed 1-2-04)

⁶Doukas DJ, “Where is the virtue in professionalism?” *Cambridge Quarterly of Healthcare Ethics* 12(2): 147-54, Spring 2003; Pellegrino, ED, “Professionalism, profession and the virtues of a good physician,” *Mount Sinai Journal of Medicine*, 69(6):378-84, 2002 Nov.

⁷Jackson P. *Life in Classrooms*. New York: Holt, Rinehart and Winston; 1968.

⁸Patenaude J, Niyonsenga T, Fafard D Changes in students' moral development during medical school: a cohort study, *CMAJ* 168(7):840-44, 1 April 2000;

⁹Feudtner C, Christakis DA, Christakis NA. “Do Clinical Clerks Suffer Ethical Erosion? Students' Perceptions of Their Ethical Environment and Personal Development,” *Academic Medicine* 69(8) 170-79, August 1994

Introducing Competencies in the Press

Many residency programs are teaching and assessing the general competencies. Evidence of this can be found in the peer-reviewed medical education literature. To apprise readers of progress in this area, the *Bulletin* has added a new feature entitled *Competencies: In the Press*. The purpose of this new feature is to communicate useful educational activities, to identify developments in residency education, and to recognize medical educators who have designed, implemented, and reported their initiatives. Each installment of *Competencies: In the Press* will discuss recent medical education articles that address a particular theme related to implementing the general competencies in residency education. The introductory theme is “Using educational goals and objectives to integrate the competencies into curricula.”

Curriculum development generally involves eight steps:

1. Identifying health care needs or problems.
2. Assessing learner needs.
3. Setting goals and objectives.
4. Selecting and organizing content.
5. Developing instructional strategies.
6. Implementing the curriculum.
7. Fostering educational climate.
8. Evaluating the curriculum.^{1,2}

This installment of *Competencies: In the Press* focuses on the third step, setting educational goals and objectives. Goals communicate the general intent of the curriculum and objectives are more specific statements about curriculum impact.² The purpose of educational objectives is to state what students will learn. Learning can be cognitive, behavioral, or affective,³ therefore, objectives will describe one or a combination of learning in these areas. Educational goals and objectives are important for at least two reasons: 1) they connect actual health care needs with learners’ subsequent educational experiences; 2) they guide course content, instructional tactics, and assessments. It could thus be argued that educational goals and objectives help to move residency education beyond the apprenticeship model of teaching and learning. The articles described below address components of the following general competencies: professionalism, practice-based learning and improvement, systems-based practice, patient care, and interpersonal and communication skills. All articles provide examples of educational goals and objectives and illustrate the links between objectives and the instructional or assessment strategies used.

Culhane-Pera KA, Reif C. Ramsey’s five levels of cultural competence: conceptualizing Bennett’s model into curricular objectives for multicultural medical education. *Annals of Behavioral Science and Medical Education* 2003;9:106-13.

Cultural sensitivity is an important component of professionalism. Culhane-Pera and Reif⁴ describe a multi-cultural curriculum for resident education they have implemented over the past eight years. The curriculum is based on an established theory about the five stages of intercultural sensitivity (i.e., Bennett’s Developmental Model of Intercultural Sensitivity). Adapted to medical education, level one learners have limited or no insight about the influence of culture on medical care. By level five, however, learners are able to integrate attention to culture into all areas of professional life. This article includes a useful table that presents curriculum objectives for each developmental stage. The objectives address residents’ knowledge, skills, and attitudes. For example at the adaptation level (i.e., level 4), learners are expected to “analyze how cultural factors influence health care” (knowledge), “incorporate patients’ desires into medical care,” (skill) and “accept responsibility to understand cultural issues in health and illness” (attitude). These objectives interface with other competencies such as patient care and interpersonal and communication skills and apply to most specialties. The article presents realistic scenarios that illustrate what residents might do at each level. The writers also provide teaching tips on how to help learners progress to the next developmental level. An assessment tool that parallels the objectives is available and can be accessed at www.acgme.org/outcome/downloads/prof_13.pdf. Finally, the writers describe faculty and resident-oriented challenges they have encountered in the process of implementing the curriculum and offer suggestions for addressing such challenges.

Frey K, Edwards F, Gorman S. Teaching disease management care: a senior resident seminar and team project model. *Family Medicine* 2002;34:242-4.

In their article, Frey and colleagues describe a curriculum that addresses components of four general competencies: practice-based learning and improvement, systems-based practice, patient care, and interpersonal and communication skills.⁵ The overall goal of the curriculum is for residents to learn the skills needed to organize chronic illness care in their future practices. The educational objectives state that learning will occur in the following four areas: evidence-based medicine, clinical guideline development, continuous quality improvement and team leadership.

The year-long curriculum for senior residents consists of a team project and seminars. The residents work together to design, implement, and evaluate an evidence-based clinical guideline. Faculty coach the residents through each step of the project. Practice-based learning and improvement is addressed through residents 1) identifying and appraising research and

guidelines; 2) applying evidence to the care of a patient or group of patients; 3) developing approaches to improving practice (via guideline development); and 4) testing the effect of improvements on patient care and outcomes. Patient care occurs when the residents develop and implement effective management plans. Systems-based practice is addressed when residents: 1) identify opportunities to improve the system of

“The overall goal of the curriculum is for residents to learn the skills needed to organize chronic illness care in their future practices.”

care for chronic diseases; 2) apply system-wide change; and 3) consider the costs of diagnostic procedures and treatment plans. Interpersonal and communication skills are addressed when residents work together as a team to solve problems and work with other health care professionals to implement practice improvements.

The curriculum is evaluated by examining resident confidence in areas addressed by the educational objectives. The residents have reported confidence in all areas. Residents' written comments about the project were analyzed and revealed their attitudes toward the project changed from initially viewing it as burdensome to viewing it as a valuable educational experience.⁶

Ogrinc G, Headrick LA, Mutha S, Coleman MT, O'Donnell J, Miles PV. A framework for teaching medical students and residents about practice-based learning and improvement, synthesized from a literature review. *Academic Medicine* 2003;78:748-56.

Improving health care is the ultimate purpose of competency in practice-based learning and improvement (PBLI) and systems-based practice (SBP). Building on a literature review and consensus by an expert panel, Ogrinc and colleagues describe a framework for teaching PBLI and SBP.⁷ The writers present educational objectives for both PBLI and SBP that are categorized within health care improvement concepts such as measurement, making change, health care as a system, and collaboration. Two premises underlie their approach. The first is that improvement begins with one's own practice of medicine (PBLI) and proceeds to improvement of larger systems that involve other health care personnel (SBP) and more patients. The second premise is that teaching and learning about PBLI and SBP follows a developmental path that should begin in medical school and progress through the end of residency. An example PBLI objective for beginning residents is “begin to measure and describe the processes and outcomes of care for the resident's own patients.” Advanced residents, however, should be able to “use balanced measures

to show that changes have improved the care for the resident's patients.” An example SBP objective for beginning residents is, “describe the system of care for a population of patients with which the resident interacts.” Advanced residents should be able to “understand and describe the reactions of a system when perturbed by change that is initiated by the resident.” The writers indicate that residents can learn about PBLI and SBP experientially with the help of mentors and subsequently by engaging other health care team members in small tests of change to improve care. This approach to teaching and learning, however, assumes that residents have received requisite education in clinical improvement, population-based care, and statistical methods and have had previous experience in small group clinical improvement projects. The key strengths of this article are that it helps to explain important components of PBLI and SBP and it provides a table with example educational objectives for both competencies. ■

¹Kern DE, Thomas PA, Howard DM, Bass EB. Curriculum development for medical education: a six-step approach. Baltimore, MD: The Johns Hopkins University press, 1998.

²Dent JA, Harden RM, editors. A practical guide for medical teachers. Edinburgh: Churchill Livingstone; 2001.

³Bloom BS, Engelhart MD, Furst EJ, Hill WH, Krathwohl (Eds.). Taxonomy of educational objectives: The classification of educational goals. Handbook I. Cognitive domains. New York: David McKay, 1956.

⁴Culhane-Pera KA, Reif C. Ramsey's five levels of cultural competence: conceptualizing Bennett's model into curricular objectives for multicultural medical education. *Annals of Behavioral Science and Medical Education* 2003;9:106-13.

⁵Frey K, Edwards F, Gorman S. Teaching disease management care: a senior resident seminar and team project model. *Family Medicine* 2002;34:242-4.

⁶Frey K, Edwards F, Altman K, Spahr, Gorman RS. The “Collaborative Care” curriculum: an educational model addressing key ACGME core competencies in primary care residency training. *Medical Education* 2003;37:786-9.

⁷Ogrinc G, Headrick LA, Mutha S, Coleman MT, O'Donnell J, Miles PV. A framework for teaching medical students and residents about practice-based learning and improvement, synthesized from a literature review. *Academic Medicine* 2003;78:748-56.

Competencies in Other Countries

UK Royal Colleges Advocated Use of Competency-Based Curricula in 2002

In 2002, Great Britain also moved to a competency-based approach for the education of specialist registrars (individuals in the upper years of graduate medical training) in 29 specialties and subspecialties.¹ The approach was promulgated by the United Kingdom's three royal colleges of physicians – the Royal College of Physicians of Edinburgh, the Royal College of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of London. The program is administered through the Joint Committee for Higher Medical Training, which serves as the umbrella body for higher medical training for the three royal colleges. It encompasses competency-based curricula and structured evaluations, and has as its goal specialist registrars achieving a range of competencies considered necessary for doctors to work as independent consultants.

Exhibit 1 Areas of competence for general physicians

- Ability to establish effective relationships with patients
- Leadership and personal management skills
- Organization, planning, and service management skills
- Education and mentoring abilities
- Quality standards, effectiveness, research, and development skills

The UK competencies, shown in *Exhibit 1*, are applied in the final stage of specialty training, which in the UK generally takes four to six years depending on the specialty. The competencies define the knowledge, skills, and attitudes required, and also define how these will be assessed. The Royal Colleges' document calls for assessment that is continuous and "on the job," with faculty at the registrars' hospitals evaluating their knowledge and experience. The competencies were implemented as part of a larger effort to update medical training in the United Kingdom. ■

Sample curricula are available at www.jchmt.org.uk

¹Mayor, S. *UK royal colleges publish competency based curriculums*. British Medical Journal. 2002; 325(7377).

Faculty Preparedness for Six General Competencies: A Second Opinion

Ingrid Philibert

The "second opinion" is an established concept in medicine. This short piece represents a kind of second opinion on the state of faculty preparedness for teaching the general competencies. In the past 18 months, many concerns have been expressed that a barrier to the application of the competencies in residency education is the requirement for a larger cadre of faculty knowledgeable in these concepts than currently exists in most teaching institutions. This "diagnosis" suggests the need for massive educational programs to increase faculty knowledge of these concepts, and many institutions have engaged in such an effort. Some are described in this issue of the *ACGME Bulletin*. Others have thrown up their hands noting that adequately preparing the faculty for the general competencies is a seemingly unattainable goal, given the financial, time and interest constraints extant at their institution. A second opinion could take the form of an analogy for learning used by Kelley Skeff, MD, PhD, Professor of Medicine at Stanford University and Principal Investigator of the Stanford Faculty Development Program. It compares the learner to a charcoal grill, and the teacher to the backyard cook whose role it is to fill the grill with charcoal, add lighter fluid and set a match to start the "fire of learning."¹ Skeff's point is that this model assumes that all knowledge must be added and may fail to see a fire already burning in the grill. Faculty development efforts often also begin with an assumption that faculty heads are dark and cold when it comes to the general competencies.

To counter this view, we should remember that the competencies were not developed in a laboratory. They represent activities that are central to the practice of medicine, and their operational definitions include many concepts we take for granted as part of every practicing physician's repertoire of knowledge, skills and attitudes. At the same time, what may contribute to the interpretation that the competencies require large-scale faculty development efforts are the differences in how recently and how well the individual competencies have been adopted by the medical community and incorporated into standard practice and education patterns. Using Everett Rogers' terminology¹ medical knowledge and clinical skills have been taken up even by the laggards; communication is well within the realm of the late majority; professionalism is gaining momentum and may be passing the stage of the early majority, but practice-based learning and improvement and, even more so, systems-based practice are still the domain of the innovators.

Our approaches to faculty development around the general competencies thus legitimately assume that faculty knowledge and skills (and appropriate attitudes) are somewhat sporadically distributed among the faculty members most involved in teaching residents. But this approach often fails to see and appreciate what is already there. To address perceived deficits, some

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institutions have remanded the teaching of the competencies to experts’ classroom lectures, with the effect that it has separated the teaching of the competencies from the clinical activities. Some think that this leaves residents interactions with faculty largely devoid of discussions and examples that could reinforce the periodic focused lectures on communication skills, professionalism and systems-based practice. This may not be a fair assessment. In his article in this issue of the Bulletin, Stephen Miller, MD, MPH, Executive Director of the ABMS, noted that the medical community is using the general competencies in the maintenance of certification for practicing physicians. This suggests faculty may possess a better understanding of the competencies than we surmise initially and, to continue the Skeff analogy, all that may be needed is a way to fan the existing small flames. That the efforts of the ACGME and others to share models, approaches and best practices are invaluable in propagating the teaching and evaluation of the general competencies is clear. At the same time, this is not and need not be the only approach to advance the competencies in residency education. Likely, faculty getting high marks for teaching has included aspects of the general competencies for the past 20 years – perhaps without their current nomenclature.

Paul Barach, MD, MPH, who directs the Patient Safety Center at the University of Miami, likes to show audiences a cartoon of a group of individuals “trapped” on an escalator. It symbolizes that when our focus is on external solutions (or “rescue”) we may fail to see resources already available to us, such as our ability to walk down steps. Two very different approaches to managing change, appreciative inquiry, developed by David Cooperrider, PhD, and his colleagues at the Weatherhead School of Management at the University of Cleveland,³ and Glouberman and Zimmerman’s recommendations for reform

of the Canadian Medicare System.⁴ Both advise us to view change not from a perspective of scarce resources and external solutions, but from a focus on the abundance already available to us. Applied to faculty preparedness for the competencies, this means that we should move beyond a predominant focus on external solutions and perceptions of scarcity (“few faculty members know the general competencies”), and replace it with an approach that celebrates the knowledge and skills related to the competencies already existing within the educated and qualified faculty in our institutions. An example from a related area is the national effort to educate medical students and primary care residents about medical genetics.⁵ The suggested approach builds on the fact that clinical practice already incorporates collection of family history, and uses this as a platform for incorporating discussion of genetic concepts. It also builds on the knowledge that efforts to educate students and primary care residents will be most successful if they fully integrate the teaching of genetics into the existing primary care curricula. ■

¹Skeff, K. AAMC Presentation, Lansdowne, VA, Fall 1995.

²Rogers, Everett, M. *Diffusion of Innovations*. 4th edition: The Free Press, New York, NY; 1995.

³Cooperrider, DL, Srivastva S. *Appreciative Inquiry in Organizational Life*; in Woodman and Passmore (Eds.), *Research in Organizational Change and Development*, JAI Press; 1987.

⁴Glouberman S, Zimmerman B. *Complicated and Complex Systems: What Would Successful Reform of Medicare Look Like?* Discussion Paper No. 8 Commission on the Future of Health Care in Canada. July 2002.

⁵Burke W, Acheson L, Botkin J, et al. *Genetics in primary care: a USA faculty development initiative*. *Community Genet*. 2002 Oct; 5(2): 138-46.

Teaching Professionalism in 80 Hours: Recipe for Failure

G. Edward Vates, MD

I have been told that asking a neurosurgeon if he is working too hard is like asking an alcoholic if he has a drinking problem. But that comparison is neither valid nor germane. I am not a neurosurgeon because I have a disease; I am a neurosurgeon because I felt a calling to become a neurosurgeon. I suspect this is true for many if not most who entered this profession. As Harvey Cushing wrote: "...if a doctor's life may not be a divine vocation, then no life is a vocation, and nothing is divine."¹

The national duty hour limits implemented on July 1, 2003, were created in response to public outcry and political machinations over a few high-profile medical blunders. The system for resident education did little to address the potency of these concerns, in part because the prevailing culture refused to admit it was wrong. But consider the attributes (now called "competencies") that form the core of a successful physician: compassion and caring to patients; knowledge; being inquisitive and self-critical about improving the manner of practice; ability to relate to patients and members of the profession; commitment to professional responsibilities; and awareness of the practice of medicine within the broader context of society. The successful development of these attributes in residents requires dedication and self-sacrifice that is directly at odds with the rigid, shift-work mentality that the duty hour limits foster. Simply put, you might be able to teach someone how to do neurosurgery in 80 hours a week, but you cannot teach him or her how to be a neurosurgeon.

The spirit that led to the development of the duty hour limits is valid and important. Residents are not fodder for a health care system that needs a cheap labor pool. But the sentiments that made residents willingly carry the burden that was put upon them also are the building blocks of professionalism: do whatever it takes to care for the patient. The duty hour limits now seem to make these sentiments "illegal." The ACGME has an obligation to monitor the quality of resident education, and part of that obligation is making sure that residents are not exhausted. However, establishing a rigid, inviolable limit on duty hours ignores the reality of medical practice, the individual differences between persons and their tolerance for time on task.

To better create a system that balances resident workload with the successful development of professionalism, the ACGME must do two things. First, it must regain control over the public discussion about resident duty hours. When a politician asks "do you want to have your mother taken care of by a resident who hasn't slept in 30 hours and is unable to think clearly?" no one is going to say "yes". But organized medicine asks "do you want your mother taken care of by a constantly changing succession of doctors, none of which has a full understanding of what's going on?" it recasts the debate in terms that we, as

members of the profession, know are more important. Until we force the public and politicians to see the issues from our point of view, and make them understand the real forces at work within medicine, we have no control over our destiny on this issue.

Second, the ACGME must develop a system that is more flexible and recognizes that different people, in different fields of medicine, differ in their lifestyle expectations and abilities to commit time to work. The ACGME has opted for a system of duty hour limits that provides political expediency at the cost

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of my training and the care of my patients. Instead, the ACGME should allow different RRCs to establish criteria and mechanisms for monitoring resident fatigue that are specific and relevant to their specialty.

Patients should expect their doctor to be alert and nimble, and able to think clearly and correctly. But patients also should expect their doctor to know them and to care for them above all else. The duty hour limits were designed to keep health care systems and the prevailing culture of resident education from taking advantage of residents, but these limits are inadvertently crushing the caring, compassion, and responsibility that form the core of professionalism. I am concerned about the kind of doctors this new world order will turn out. ■

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¹Cushing, H. *Consecratio Medici*. Little, Brown and Company. Boston, 1929.

Reflections on Professionalism from a Senior Surgeon

David L. Nahrwold, MD

We learned at the ACGME-ABMS Conference on Professionalism that professionalism has many facets. A Physician Charter on Medical Professionalism, developed and published under the leadership of the American Board of Internal Medicine Foundation, encompasses all of those. It is a document that teaches, motivates, and inspires the reader. To me the core, or essence, of professionalism is expressed within the doctor-patient relationship. It is here, in this private – some would say sacred – relationship that the doctor lives out his or her professionalism for an individual who needs his or her help and expertise. The doctor, as Professor Edward Eisner said, displays his or her caring for the patient. The relationship is difficult to define, but there is a hierarchy of words that describe it. Dr. Eisner used the word caring. We might also say feeling, because the doctor feels for the patient in his or her distress or even in his or her need for preventive interventions. The hierarchy of words might be caring, feeling, and finally, love, the love of man for his fellow man. The patient, while seeking help, is receptive to the caring, feeling and love expressed by the physician as he or she diagnoses and treats, but especially as the physician comforts, counsels, and advocates for the patient. The connection of the doctor and patient brought about by these expressions of professionalism facilitates the diagnosis, treatment, and well being of the patient.

The same caring and love should be applied to groups of individuals who share the same disease, such as diabetes, and to those who need preventive services. The ultimate expression of caring, feeling, and love by our profession for our fellow man would be to evolve a health system that works and improves the health and well being of the public.

The remarks about professionalism by Dr. Edward Vates, a resident in neurological surgery, and Mr. Dipesh Navsaria, MPH, PAC, a medical student in the Class of 2005 at the University of Illinois at Champaign, were heartwarming. Both have a deep understanding of their obligations to individual patients and to society. The health professions and the public can be proud of them.

Dr. Vates took the opportunity to point out that the ACGME policy on duty hours, restricting residents to 80 hours per week, is an affront to his professionalism. He noted that duty hour policies interrupted the continuity of care, and therefore are an unprofessional intrusion into his relationships with his patients. If the essence of professionalism is expressed in the doctor-patient relationship, involuntary withdrawal of the physician from the relationship, especially during critical periods, would seem inappropriate, at best.

But the most compelling rejoinder to Dr. Vates' concern is that duty hour policies did result from public concern and criticism about the excessive work hours of resident physicians. Every adult has stayed up all night working, studying, partying, caring for a sick child, or for other reasons, and everyone

knows from those experiences that sleep deprivation impedes performance. The public, mindful of its own experience, does not want sleep-deprived physicians caring for patients. The nation's citizens believe that trading the professionalism of continuity of care for needed sleep is a bargain.

Even while working 110 hours per week residents left sick patients in the care of others, and practicing physicians find it necessary to do the same. Residents do not have sufficient time for adequate study and reflection on their experiences while working more than 80 hours. The consummate professional is a well-rounded individual who has good interpersonal and communication skills, a penchant for continuous learning, and a deep understanding of the human condition. The 80-hour week is not about work hours; it is about reinventing resident learning and teaching to encompass these attributes.

Dr. Vates, you and your colleagues should use your newly found hours away from work to hone your interpersonal and communication skills, your professionalism, and your understanding of human nature. Reflecting on the care of

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recent patients and thinking of ways to improve relationships with patients and families as well as patient care should be a routine, self-imposed exercise. Continued intellectual and social growth is essential to the development of professionalism. I suggest that you use non-duty hours to take a walk with your spouse, keep a journal, read the editorial page of the newspaper, and play with your children. You might pick up the instrument your parents made you take up as a child, write your in-laws a letter and tell them what a great daughter or son they raised, or tell their daughter or son how terrific she/he is. Engaging yourself in life outside neurological surgery will enhance your professionalism and make you a better doctor. Your patients will be the beneficiaries.

At the level of the educational community, Dr. Vates' comments expose the need for teaching hospital administrators, program directors, and faculty to increase their sensitivity to the professionalism felt and displayed by residents. We need to develop techniques through which we can mentor residents to develop their professionalism. The best way to start is to practice the highest order of professionalism ourselves. ■

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