Professionalism and Patient Safety

Over the past year, a representative faculty group at Jefferson Medical College began revisiting its “Code of Professional Conduct” and its views on “Medical Professionalism.” The code and Jefferson’s core values go beyond simply targeting faculty and clinicians, extending their reach to include medical students and housestaff. Through the reassessment of the code and professional principles, leaders at Jefferson have become keenly aware that these professional behaviors and ethics are distinctly linked to patient safety. In this editorial, we wish to draw upon some of the key principles of The Charter on Medical Professionalism, and discuss how these principles are essential to creating a culture of professionalism and safety. Finally, we will share highlights from Jefferson Medical College events and activities dedicated to promoting professionalism and patient safety among medical students and housestaff.

It is incumbent upon medical professionals to act in the best interest of their patients. Jefferson is taking professionalism one step further by aligning patient safety strategies with its core values and philosophy on medical professionalism. The professions are unique in that they have the “privilege of self-regulation.” Along with this privilege comes the responsibility of responding to and reporting problems, errors and egregious activities – with an eye toward preventing them in the future. Building upon the work of others in this area, Jefferson’s efforts are dedicated to stimulating a renewed focus on professionalism.

The Charter

The Charter on Medical Professionalism, a product of the collaboration between American College of Physicians-American Society of Internal Medicine (ACP–ASIM) Foundation, the American Board of Internal Medicine (ABIM) Foundation and the European Federation of Internal Medicine (EFIM), outlines important principles that serve as a guide to promote and maintain professional behaviors and attitudes. The responsibilities outlined in the Charter go beyond the basic premises of professionalism (i.e., maintain and transmit knowledge, act in the patient’s interest, establish and enforce standards, and value performance above rewards) to emphasize an even greater commitment to patients and patient care, underscoring honesty and transparency, patient confidentiality, and striving for continuous quality improvement through collaborative efforts across disciplines. Unfortunately, these commitments often are not met, as exemplified by fraud and abuse cases, and medical malpractice suits. These sometimes egregious, often insidious breaches in professional behavior leave our patients at risk.

Not a Skill Set — A Mindset

Many think of a professional as someone who possesses a unique and highly-honed set of skills. While certain skill sets are essential components of a physician’s expertise, professionalism goes beyond the categorization of skills to encompass an individual’s state of mind and personal philosophy. A true professional is one who acts with honesty and ethics, who possesses a strong personal commitment to patients and their care, and who is careful to exercise his/her responsibilities to the best of his/her abilities.

How can these characteristics affect quality and patient safety?

Honesty and ethics: Many assume that medical errors are simply a result of poor skills, faulty decisions, or even of improper or inefficient systems. Yet honesty and acting ethically are two key components of professional behavior that also have a major effect on safety. Dishonest and unethical behavior, such as withholding important information about a treatment option, lying about an error, regardless of whether or not it caused harm, all contribute to our faulty – and for many, dangerous – healthcare system. Without honesty throughout the system (often referred to as transparency) patients face potential adverse events and the consequences resulting from uninformed decisions.
**Self-regulation and professional responsibilities:** As members of a learned profession, physicians are expected to establish and enforce standards. In most cases these are seen as doctoring skill, but these core competencies have recently been expanded to include humanistic and communication skills. Again we single out medicine, but only to use it as a yardstick for everyone working with and for patients. Those in the healthcare field must not only be aware of their responsibility to speak up, but also feel confident that when they do their voice will be heard.

**Culture of professionalism:** In recent years, health plans, healthcare organizations and others have publicly emphasized their focus on customer service. While a customer service orientation is necessary for working in the patient’s interest, it is not sufficient in creating a truly patient-centered system. In order to achieve true patient-centered quality care, healthcare executives and their quality improvement teams must continue to strive towards creating a “culture of safety,” an environment that encourages individuals to speak up without fear of retaliation. This ideal culture is assumed to be non-punitive, seeks to place the welfare of the patients first, and is essential for quality improvement in health care.

**Jefferson Medical College Strategies to Promote Professional Behaviors and Patient Safety**

Stanton N. Smullens, MD, Chief Medical Officer of the Jefferson Health System, and currently the Chair of the Jefferson Medical College’s Committee for the Continuing Evaluation of the Code of Professional Conduct, stresses the need for a fundamental change to the healthcare culture. He emphasizes that this change must be instilled throughout student’s formal education in order to transform the healthcare system in the future.

**Medical Student Programs**

For the past three years, Jefferson Medical College has sponsored a day-long education program on patient safety for third-year medical students. Modeled after other exacting professions, such as aviation, students learn about the importance of speaking up when faced with an obvious or potential safety issue. At these meetings and through other channels, Dean Thomas Nasca, MD, MACP has made a direct plea for students to approach him with concerns, issues, and reports of adverse events. Dean Nasca’s aim is to encourage this self-regulatory behavior during medical school as a way of making it an accepted and expected behavioral norm once they begin their medical practice.

In addition to providing a day on patient safety issues, in March 2006 third-year medical students also participated in an Interclerkship day focused on professionalism. This event was highly interactive with small group discussions on a variety of ethical dilemmas that commonly confront physicians. The day also included the opportunity for the students to review, rewrite and discuss the personal Hippocratic Oaths they originally wrote during their first-year orientation.

**Internal Medicine Takes the Charter to Heart**

Housestaff are role models for medical students, and are often the first provider to see patients in an academic medical setting. Recognizing these facts, Jefferson’s Department of Internal Medicine recently began several novel activities with the aim of promoting professionalism among its interns and residents. First, each member of the housestaff received a pocket card with the ten key points of professionalism taken from the Charter. Second, a Housestaff Professionalism Committee was created with the two primary objectives:

1. Educating residents and faculty about issues on professionalism. A grand rounds presentation on professionalism by Jordan Cohen, MD, the former President of Association of American Medical Colleges (AAMC), was one activity designed to meet the education objective of the committee.

2. Recognizing outstanding professional behaviors by housestaff, attendings, and faculty with a special “10 Point” star pin.

The goal of these strategies is to create a positive, open forum for discussing and promoting professional behaviors among residents and faculty. While the implementation of the committee and these activities are relatively new, the Department of Internal Medicine’s Residency Director, Dr. Gregory Kane, hopes that this program becomes a model for other departments within Jefferson and other academic medical centers.

**A New Approach to Safety**

The connection of safety to professional behaviors continues to grow more evident. This link argues that creating a “culture of safety” may be too limited an approach. A more appropriate strategy should be to advance a “culture of professionalism,” which by definition embodies the culture of safety.

Though physicians must act as role models of professional behavior, they cannot, and should not, carry the torch alone. As underscored by a number of quality improvement initiatives, all employees in health care must work as a professional team, all understanding their role, but also recognizing their ability to affect patients’ care.

**In the September 2006 Newsletter Issue**

In this issue of the *Health Policy Newsletter* are two important articles. One highlights the findings of research linking medical students’ non-professional behaviors and subsequent disciplinary actions in practice. Another stresses the importance of lifelong learning, one of the key components of professionalism. These are just two examples of the research examining professionalism and its potential effects on patient care.

As usual, we are interested in your views. Send your comments to david.nash@jefferson.edu.

Sara L. Thier, MPH  
*Managing Editor*

David B. Nash MD, MBA  
*Editor*
Albert Schweitzer was a physician, philosopher, organist, and theologian, but is best remembered as a humanitarian. Dr. Schweitzer’s idea of “Reverence for Life,” viewing all life as worthy and of equal reverence to his own, is reflected in his own life’s work, including the establishment of the Schweitzer Hospital in Gabon. In 1940, the Albert Schweitzer Fellowship was established in the United States to support Dr. Schweitzer’s work in Africa. In 1991, the U.S. Schweitzer Fellows Program was launched, with the mission:

To reduce disparities in health and health care by developing “Leaders in Service”: individuals who are dedicated and skilled in helping underserved communities, and whose example influences and inspires others

In several regions around the United States, the program recruits over 125 Schweitzer Fellows annually. Schweitzer Fellows are graduate students in the health disciplines who participate in a year-long, stipend-supported, community service project, and then join the ranks of a national network of Fellowship Program graduates who continue to seek opportunities to serve the community.

With guidance from the National Program Office in Boston, a Delaware Valley Schweitzer Fellows Program is now being launched under the leadership of Dr. David B. Nash. Although the local program will be administered through the Department of Health Policy at Jefferson Medical College, it is hoped that the Delaware Valley program will become a true collaboration across a wide range of organizations, and that it will join other local initiatives in helping to address the health needs of underserved populations in Delaware, Pennsylvania, and Southern New Jersey.

Recruitment of Fellowship applicants will take place in the fall of 2006, with the goal of getting underway with the first cohort of Fellows in the late spring of 2007. For further information on the program, including opportunities to sponsor a Fellow, please contact the Program Coordinator, Nicole Cobb, MAOM, at 215-955-9995, or Nicole.cobb@jefferson.edu.

REFERENCES

Delaware Valley Schweitzer Fellowship Program to be Launched

Thomas J. Nasca, MD, MACP, Dean
Jefferson Medical College
Thomas Jefferson University

Invites you to participate in this important meeting of distinguished leaders on Friday, November 10, 2006 in Philadelphia, PA.

Keynote speaker:
Ronald A. Arky, MD

For complete conference information and to register, visit the DHP online at www.jefferson.edu/dhp/education_ls.cfm
Disciplinary Action by State Medical Boards and Unprofessional Behavior in Medical School

Until recently, the data to support the long-held assumption that medical students who exhibit professional behaviors become more “professional” physicians were limited. However, in December 2005, The New England Journal of Medicine published the findings of the first national study to examine the link between unprofessional behaviors in medical school with later disciplinary action by a medical board. This case control study, which was conducted at the University of California, San Francisco, the University of Michigan and Jefferson Medical College, showed that practicing physicians disciplined by state medical boards were three times as likely to have displayed unprofessional behaviors in medical school as those with no records of discipline.  

The study team conducted a search of public records maintained at the Federation of State Medical Boards (www.docinfo.org). The cases (n=235) were graduates of the three medical schools between 1970 and 1999 who were disciplined by one of 40 state medical boards between 1990 and 2003. The control physicians (n=469) were matched by medical school and graduation year. The nature of the disciplinary actions ranged from public reprimand to license revocation. The team classified the disciplinary actions into three categories: (1) unprofessional behavior, which accounted for 74 percent of the violations, (2) incompetence, or (3) violation category not determinable. Most (94 percent) of the physicians who were disciplined committed multiple violations that involved unprofessional behaviors, including activities such as negligence, inappropriate prescribing, fraud and sexual misconduct, but excluding incompetence related to mental or physical impairments.

Demographic variables included sex, year of graduation, clinical specialty, and age at discipline. The predictor variables from medical school included grades, standardized test scores, and narratives describing students’ unprofessional behavior, which the investigators extracted from academic records. The definition of unprofessional behavior in medical school was based on previously established criteria. The investigators performed a formal content analysis of the narratives of unprofessional behavior to characterize the types of unprofessional behavior using QSR NVivo® (version 2.0, Victoria, Australia). For each student the instances of unprofessional behavior was classified into one of eight types and assigned a severity ranking of moderate or severe based on frequency.

The two types of unprofessional behavior most strongly linked with future disciplinary action were severe irresponsibility, which had an odds ratio of 8.5, and severe resistance to self-improve, which had an odds ratio of 3.1. Examples of irresponsibility in medical school were unreliable attendance in clinic or not following up on patient care activities. Examples of resistance to self-improvement were not accepting constructive criticism, being argumentative, or displaying a poor attitude. Low Medical College Admission Test (MCAT) scores and poor grades in the first two years of medical school also were associated with future disciplinary action, but less strongly than unprofessional behavior (1 percent and 7 percent population-attributable risk, respectively). Male sex, which had been a risk factor in previous studies, was not a risk factor.

An early study conducted at Jefferson had shown that first-year residents who exhibited low in professional attitudes were less likely to continue into residency programs, and tended to have lower ratings of performance in their medical school clerkships. A recent follow-up study reported that medical students who lacked thoroughness and were unable to perceive their weaknesses in the preclinical years were more likely to be identified as unprofessional in the clinical years. Although disciplinary action by state medical boards is rare and much less frequent than unprofessional behavior in medical school and residency, the findings of Papadakis et al indicate that, for some students, unprofessional behavior is sustained over decades.

Recent objectives for undergraduate and graduate medical education provided by the Association of American Medical Colleges and the Accreditation Council for Graduate Medical Education already include professionalism as a core competence. It is clear that professionalism can and must be taught and modeled in medical schools. Papadakis et al provide robust empirical support for, and examples of, additional medical school level recommendations. Technical standards for admission to medical school and outcome objectives for graduation need to be reviewed and revised to include explicit language about professional behavior. Medical schools should consider administering standardized instruments to applicants as a way of assessing personal qualities of medical and predicting performance. The authors point out that better evaluation systems are needed to monitor the development of professional behavior and to document deficiencies. Finally, providing feedback to students guided by evidence may motivate and direct remediation strategies, but underscore that fact that the best practices for the remediation of deficiencies in professionalism need to be identified.

REFERENCES
A national survey of medical students identified gaps in knowledge of key issues facing the U.S. healthcare system. How does Jefferson first year students’ knowledge compare to their colleagues?

As a part of the first year Jefferson Medical College (JMC) curriculum for medical practice for the 21st century (MP-21), the author of this article gave three lectures to students encompassing part of the material reported in the *Academic Medicine* article. Using the audience response system, a slightly modified version of the examination was administered prior to the first lecture. The Table compares the responses of JMC students to their colleagues nationally.

Overall, the knowledge (or lack of knowledge) of the healthcare system is similar among Jefferson students as compared to their peers. Thirty-nine percent of JMC students incorrectly answered that the United States had the lowest infant mortality rate (item 2) and 17 percent incorrectly answered that the United States has a higher life expectancy than any other nation (item 1). Only 52 percent of JMC first year students realized that the United States is the only industrialized nation in the world that does not guarantee access to health care for all of its citizens (item 4).

Over 90 percent of JMC students answered correctly when asked about some of the consequences of lack of health insurance, such as not having a regular source of medical care, avoidable hospitalizations for diseases such as asthma and diabetes mellitus, and delayed diagnosis for cancer (items 6-8).

Ninety-five percent of JMC students knew that the number of uninsured has increased in the United States over the last decade (item 11), however only 36 percent correctly responded to the item about the number of uninsured people in the United States (item 13), with most underestimating the magnitude of the problem.

In the national survey, it was the students’ opinion that health policy is not adequately covered in the medical school curriculum. Agrawal et al concluded:

> Medical educators should consider expanding and enhancing health policy curricula to improve students’ satisfaction with their education and to produce a physician work force prepared to function and improve the system in which they work.¹

JMC first year students’ knowledge of the healthcare system is similar to their peers nationally. With U.S. healthcare costs over 16 percent of the GDP and 45 million people without health insurance, health policy is clearly an important issue. How can we best integrate health policy in the JMC curriculum to assist our students in meeting the challenges of practicing medicine in the 21st century?

### Table 1: Survey responses at JMC compared to a national survey

<table>
<thead>
<tr>
<th>Item</th>
<th>Correct response</th>
<th>National survey¹</th>
<th>JMC students*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The United States has a higher life expectancy than any other nation in the world.</td>
<td>False</td>
<td>72%</td>
<td>83%</td>
</tr>
<tr>
<td>2. The United States has a lower infant mortality rate than any other nation in the world.</td>
<td>False</td>
<td>59%</td>
<td>61%</td>
</tr>
<tr>
<td>3. Government-administered health insurance (e.g., Medicare) requires more money per person for administrative costs than private health insurance.</td>
<td>False</td>
<td>47%</td>
<td>37%</td>
</tr>
<tr>
<td>4. The United States is the only industrialized nation in the world not to guarantee access to health care for all of its citizens.</td>
<td>True</td>
<td>40%</td>
<td>52%</td>
</tr>
<tr>
<td>5. The United States spends more per person on health care annually than any other nation in the world.</td>
<td>True</td>
<td>69%</td>
<td>83%</td>
</tr>
<tr>
<td>6. People without health insurance are less likely to have a regular source of medical care.</td>
<td>True</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>7. People without health insurance are more likely to suffer from avoidable hospitalizations for diseases such as asthma and diabetes mellitus.</td>
<td>True</td>
<td>96%</td>
<td>92%</td>
</tr>
<tr>
<td>8. People without health insurance are more likely to suffer from delayed diagnoses for diseases like cancer.</td>
<td>True</td>
<td>98%</td>
<td>98%</td>
</tr>
<tr>
<td>9. Most individuals without health insurance are in families where no one works.</td>
<td>False</td>
<td>87%</td>
<td>86%</td>
</tr>
<tr>
<td>10. Raising the cost of co-payments or deductibles does not affect whether patients will go see their doctor.</td>
<td>False</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>11. The number of uninsured individuals in the United States increased over the last decade.</td>
<td>True</td>
<td>89%</td>
<td>95%</td>
</tr>
<tr>
<td>12. Where, approximately, did the United States rank, out of 191 countries, in a 2000 World Health Organization report on “health systems performance”?*</td>
<td>Near 40th place</td>
<td>13%</td>
<td>27%</td>
</tr>
<tr>
<td>13. How many uninsured people are there in the United States today?</td>
<td>40 to 50 million</td>
<td>31%</td>
<td>36%</td>
</tr>
</tbody>
</table>

* Administered to JMC first year students using the audience response system on November 29, 2005.

**REFERENCES**

Can the Internet Help Combat Obesity at the Workplace?

Approximately 66 percent of adults in the United States are overweight or obese, 32 percent are obese, and 5 percent are extremely obese.1 Obesity was associated with approximately 112,000 deaths in the year 2000 in the United States.2 The rate of overweight and obesity among American adults continues to rise each year, and, unfortunately, behavioral treatments are generally ineffective unless maintained indefinitely.

What part can the Internet play in fighting the obesity epidemic?

The Pew Internet & American Life Project reports that 73 percent of adults in the US use the Internet with 80 percent of those users searching for health information online, in particular topics such as diet and fitness. The Internet is an attractive delivery system for weight loss interventions because it can house programs that are participant-tailored, intensive and long-term at a modest cost. In addition, the Internet can be used at a time and place convenient to the user, such as the workplace.

Internet Weight Loss Programs and the Workplace

As obesity is re-conceptualized as a chronic disease that may benefit from disease management, employers and insurance providers are implementing programs to encourage employees/insured to maintain a healthy weight and to lower company costs associated with overweight and obesity. Ricci and Chee estimated the total annual cost of health-related lost productive time (i.e., work absence plus reduced performance at work) in obese workers was approximately $42 billion collectively or $1600 per obese worker per year.3 Employers, such as the Federal Reserve Bank of Dallas who began to cover 80 percent of their employees’ cost to join Weight Watchers Corporate Program (which offers both the standard Weight Watchers program as well as their online program) are proactively managing this problem. Joining them are a range of participating companies (large, small, for-profit, non-profit) such as Verizon Wireless, Gilspar, Inc. and Rutgers University and providers such as CaloriesCount.com and DietWatch.com, which can be placed on a corporate intranet to promote wellness and healthy lifestyles among employees.

Do Internet weight loss programs work?

Very few Internet weight loss programs have been evaluated using randomized controlled trials (RCT). Of the commercial Internet weight loss programs, only eDiets.com has been tested in a published RCT.4 Findings showed that website users lost less weight than those who used a behavioral weight loss manual. Research on three noncommercial programs that were implemented and evaluated in research settings showed more promising results.5 All three found increased weight loss for website users compared to those who did not use the website. Success appears to be related to a couple of key components present across programs: 1) promotion of self-regulations skills (i.e., planning, self-monitoring, problem solving, goal setting and self-incentives); and 2) use of social networks (i.e., family, church, sororities/fraternities, sports groups and Internet groups). Success also appears to be related to how often the program was used by participants. Data from the eDiets.com study showed that the amount of weight website users lost was related to their frequency of website use.4

How is Jefferson using the Internet to fight the obesity epidemic?

There is a demonstrated need for obesity programs that are long-term, low-cost, convenient and shown to be effective through evaluation. Dr. Christopher Sciamanna of the DHP is developing and testing a new website www.achievetogther.com that aims to assist participants in identifying, reviewing and modifying a personalized list of reasons and motivations to lose weight and weight-loss strategies. Essentially, the website works with individuals to fine-tune their self-regulations skills helping them to plan, self-monitor, problem solve and create goals and self-incentives. Second, the website acts as a forum allowing users to post or share their lists of reasons and strategies so that users may expand their own lists to include what has worked for others. In this way, the program incorporates a social network, showing users that they are not alone in their effort to lose weight, that maintaining weight loss is a life-long process, that others have achieved success and that there are multiple strategies that can lead to success and be integrated into their existing plan. As weight loss interventions can be expensive and often fail when stopped,4,5 our goal is to create a website that is effective, engaging and inexpensive, making it a long-term solution for employees and an economically feasible option for employers. We invite interested readers to explore the website at http://www.achievetogther.com. We are interested in your feedback. Please email any comments to chris.sciamanna@jefferson.edu.

REFERENCES
The Department of Health Policy hosted its 12th Annual Summer Seminar on July 19, 2006. With over 100 Senior Scholars, dozens of former outcomes research fellows, and numerous national and international clients and colleagues, it seemed appropriate to present an overview of the burgeoning programs and projects in the growing Department of Health Policy.

FOCUS (Facilitating Opportunities to Create Universal Success) 2006 welcomed nearly 150 attendees for a morning of sharing and discussion. After staff presentations, an invited panel of five senior scholars participated in a discussion about some of the key issues and trends that they feel will influence health care in 2020. Below is a summary of the key points from each panelist.

Michael Sokol, MD, MS
Medical Director, Health Management Innovations, GlaxoSmithKline

Instead of the current tiered benefit design, various PBMs (Pharmacy Benefit Managers) and managed care organizations are considering adopting the benefit-based co-pay, and/or value-based purchasing for consumers. A study conducted in Asheville, NC proved that educational interventions and decreased out-of-pocket costs for medications resulted in improved disease state management outcomes and reduced overall health care costs. The Asheville project should be replicated in different cities, and also in different chronic disease states to validate findings to support the benefit-based co-pay and value-based purchasing systems.

Stuart Henochowicz, MD, MBA, FACP
Internal Medicine and Allergy Associates

Primary care is essential in health-care delivery to minimize cost of care and to increase efficiency. Primary care faces several challenges, such as 1) effectively promoting primary care to the public, 2) shortage of primary care physicians, and 3) need for an electronic health record system. Health care utilization is expected to increase due to a larger segment of Americans entering old age. Due to challenges primary care faces, there may not be sufficient number of small primary care practices available to serve this larger geriatric population, who will require primary physicians to help manage chronic diseases.

John van Steenwyk, AB, MBA
President, Health Economics Inc.

Healthcare costs will continue to rise in 2020. Providers will find a way to share these costs with private sectors, the government and consumers. Cutbacks will involve increasing cost sharing (e.g. increasing co-payments), restriction and eligibility, and creative provider payment program.

Bryan Luce, PhD, MBA
Senior Research Leader & CEO, The MEDTAP Institute at UBC

In 2020, U. S. health care will have to meet the educated, Internet-savvy baby boomers’ demands for high quality care. The major pharmaceutical companies will shift from their current focus of primary care products to the development and commercialization of specialty drugs. These biotechnology drugs will offer personalized regimens for patients, but also they will be very expensive. Questions surrounding the value proposition for these drugs (access, cost, quality of life, outcomes) remain unanswered, but will need to be addressed.

James Cross, MD
National Medical Director, Aetna, Inc.

Current estimates place the cost of healthcare expenditures in the United States at nearly 18 % of the national gross domestic product (GDP). It is anticipated that by 2020 this percentage will increase to 25 %. The question is, will that be an acceptable amount for the type of care consumers will receive? Healthcare costs in the United States will continue to rise, despite the limited amount of funding available from the government. The cost of health care will either be shifted to private payers or shared with consumers. By year 2020, electronic personal medical records will be available. Overall care will be more personalized, using pharmacogenetics, and possibly encrypted implantable chips for tracking individual health data. The United States may not always be home to the best therapies and treatments, and there may be a spike in tourism fueled by individuals seeking high quality, affordable health care around the world. Preventive medicine, vaccinations, and innovation in delivering health care will be demanded, and consumer outcome driven practice is expected.

Question and Answer Session

Dr. David B. Nash, chair of the department, and others in the audience posed questions ranging from to their thoughts about “retail medicine” chains (e.g., TakeCare, MinuteClinic) to disruptive technology to health literacy.

To access the podcast of the entire one-hour panel discussion and Q&A session, as well as the slides from the staff presentation, please visit: http://www.jefferson.edu/dhp/presentations.cfm

More on Podcasting in Health Care

For more on podcasting and implications in health care, keep your eyes peeled for the upcoming December 2006 Health Policy Newsletter and an article by Rodney B. Murray, PhD, Director, Application & Web Services, Jefferson Information Technologies, Thomas Jefferson University.
Identifying Predictors of Physician Lifelong Learning

We all want to believe that our doctors keep up with the latest evidence-based care. We assume they read all the key articles, attend all the relevant continuing education programs, and recognize that these activities are essential for providing the highest quality care. But, it wasn’t until recently that the importance of “lifelong learning” was recognized by academic medicine.

Three reports from the Association of American Medical Colleges (AAMC) Medical School Objectives Project (MSOP) stress the importance of preparing medical students to become lifelong learners.1 Similarly, the Liaison Committee on Medical Education (LCME) recommends that medical school faculty “should foster in students the ability to learn through self-directed, independent study throughout their professional lives.”2 In the practice of medicine, a commitment to rigorous learning throughout professional life has also been described as an important element of professionalism in medicine.3 Principle V of the Principles of Medical Ethics adopted and revised by the American Medical Association House of Delegates on June 17, 2001 specifies that: “A physician shall continue to study, apply, and advance scientific knowledge….”4

Empirical study to investigate physician lifelong learning would not be possible without psychometrically-sound instruments to measure the concept. To overcome this obstacle, through a previous project, which was supported in part by the National Board of Medical Examiners (NBME) Stemmler Medical Education Research Fund, we developed the Jefferson Scale of Physician Lifelong Learning (JSPLL).

The JSPLL includes 19 items, each answered on a 4-point Likert-type scale (Strongly Agree=4, Strongly Disagree=1). (See Table 1 for sample items.) Higher scores are equated with a greater orientation toward lifelong learning. We provided evidence in support of psychometric properties of the JSPLL,5,6 including construct and criterion-related validities, internal consistency reliability (coefficient alpha), and test-retest reliability.

The availability of an operational measure of physician lifelong learning such as the JSPLL provides an opportunity to investigate correlates of lifelong learning. Supported in part by an invitational grant from the NBME Stemmler Medical Education Research Fund,7 we are conducting a new study designed to address predictors and outcomes of physician lifelong learning, using a nationwide sample of physicians. This two-year study, approved by Jefferson’s Institutional Review Board, is scheduled for completion in 2007.

Predictors of Physician Lifelong Learning: Identifying predictors of lifelong learning can improve our understanding of the factors that contribute to its development. For example, the identification of measures of academic attainment prior to, during and after medical school that can predict lifelong learning would allow us to forecast those who need supplemental educational remedies for enhancement of lifelong learning during medical school, or in residency.

Jefferson Medical College is in a unique position to address this issue because of the availability of data from the Jefferson Longitudinal Study of Medical Education that is recognized as a model of outcome assessment in medical education.8 So far, 155 articles have been published in peer review journals from this database. We recently assembled the abstracts of these articles in a

<table>
<thead>
<tr>
<th>TABLE 1: Sample questions from each Subscale in JSPLL</th>
<th>Subscale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapid changes in medical science require constant updating of knowledge and development of new professional skills</td>
<td>Learning Beliefs and Motivations</td>
</tr>
<tr>
<td>I actively conduct research as a principal investigator or a co-investigator</td>
<td>Scholarly Activities</td>
</tr>
<tr>
<td>I routinely attend annual meetings of professional medical organization</td>
<td>Attention to Learning Opportunities</td>
</tr>
<tr>
<td>I search computer databases to find out about new developments in my field</td>
<td>Technical skills in Information Seeking</td>
</tr>
</tbody>
</table>

In our current study, the potential predictors of lifelong learning prior to medical school will include the undergraduate grade point averages (GPAs) in science and non-science courses and the MCAT scores. Potential predictors of lifelong learning during medical school will include GPAs in the first and second year, objective examination grades in core clerkships in the third year (family medicine, internal medicine, obstetrics/gynecology, pediatrics, psychiatry, and surgery), and global ratings of clinical competence in the six core clerkships. Also, scores on Steps 1, 2, and 3 of the United States Medical Licensing Examinations (USMLE) and Parts 1, 2, and 3 of the NBME examinations will be among potential predictors of physician lifelong learning. In addition, ratings of postgraduate clinical competence in three areas of “data gathering and processing skills,” “interpersonal skills and attitudes,” and “socioeconomic aspects of patient care” will be used as potential predictors of lifelong learning during residency training.

Outcomes of Physician Lifelong Learning: The issue of examining the outcomes of lifelong learning is also important for improving our understanding any associations between JSPLL scores and professional outcomes. The following are the set of variables we will use in this study: employment status (full- or part-time), board certification, teaching and research activities (hours per typical week), patient load (number of patients per typical week), publications (in the past 5 years), work setting (solo or group practice, medical school, state or federal government), and satisfaction with career (on a 10-point Likert-type scale).

The study population of over 5,458 graduates of Jefferson Medical College from 1975-2000, is representative across geographic regions in the United States and practice specialties in medicine. With a 50% response rate (after initial mailing and two follow-up reminders), the results of this survey will allow us to identify correlates of physician lifelong learning (predictors and outcomes) and will enhance our understanding of the variables that can predict lifelong learning and its outcomes.

Acknowledgments. The project is supported by an invitational grant from the NBME Stemmler Medical Education Research Fund. The study, its findings, and interpretations of the outcomes do not necessarily reflect NBME policy, and the NBME support provides no official endorsement.

References on page 9
Diseases like diabetes and heart disease are largely preventable. An NIH study in this country followed those conducted in China and Finland; all found that lifestyle changes will prevent diabetes by 60 percent among those at highest risk for the disease. All three studies demonstrated that education, not medication, was the key to success.1-3 Two recent randomized studies published in peer-reviewed journals demonstrated that productivity concepts learned during the Industrial Revolution continue to have value when used to optimize care among patients with diabetes and heart disease.4,5 Factory assembly line workers who were given feedback on their performance were much more likely to achieve their goals than workers who were given no feedback. In these two recent studies of patients with diabetes and heart disease, a similar association was observed. Patients who were given feedback regarding cholesterol and hemoglobin A1c levels were more likely to achieve goals than those who were not. The heart disease study randomized 80 patients who were hospitalized for cardiac symptoms and who had a definitive diagnosis of heart disease. In the diabetes study, 150 patients who had recently completed an American Diabetes Association (ADA)-recognized diabetes education program were randomized to one of two groups. In each of these studies, half of the patients (the intervention group) received:

1) a colorful, computer-generated personalized report of their cholesterol status and goals in the format of an 11 by 17 inch laminated poster with magnets on the back of the poster, designed to be placed on the refrigerator,
2) a monthly postcard emphasizing their hemoglobin A1c goal, and
3) a personalized wallet card to track their blood sugars, blood pressure and weight.

The other half of the patients received no intervention. Both groups received a fasting cholesterol profile and their physicians received traditional laboratory reports of their patients' cholesterol status without knowing which patients received the intervention.

Six months after enrollment, patients were asked to return to the hospital for a follow-up cholesterol profile. Across the two studies a total of 191 patients completed the trial (79 percent and 84 percent of participants, respectively). For patients in the heart disease study who had not met the National Cholesterol Education Program (NCEP) goals at baseline, those in the intervention group had a statistically significant fall in LDL cholesterol of 21.5 mg/dL (P<0.001), as compared to no change in the LDL levels in the control group. Those who received posters were three times less likely to be readmitted for cardiac procedures within the 6-month study period (7.6 percent vs. 21.6 percent). Seventy-three percent of patients reported having the posters on their refrigerators 6 months following their hospital stay.

In the larger diabetes study, hemoglobin A1C levels decreased beyond predicted levels in the 6 month period. Those patients who received posters, and whose baseline hemoglobin A1c was > 7.0% had an absolute drop in hemoglobin A1c of 2.26%, which exceeds the 1% reduction generally seen among the most effective diabetes medications. Note that the physicians of patients in this group also received a chart-sized version of the poster.

As health care evolves, the question of where and when to provide preventive care is raised. These studies demonstrate that patients can benefit from individual feedback and appropriately-packaged information as well as their medications. The combination has a very powerful proven effect, but like many other preventive intervention studies, these findings have yet to be translated into practice.

As healthcare costs soar, who pays for prevention—even proven prevention strategies—remains a serious and seemingly unanswerable question. The good news is that science continues to demonstrate what we have known for centuries—patients' attitudes and participation in their own health care improves outcomes. An ounce of prevention is worth a pound of cure, and can begin anywhere—even on the refrigerator door.

**REFERENCES**

7. National Board of Medical Examiners. Stemmler Medical Education Research Fund. Available at: https://www2.nbme.org/Application/StemmlerFAQ.asp

---

**The Power of Goal Setting**

**CLARESA LEVETAN, MD, FACE**

**MAIN LINE ENDOCRINOLOGY**

**REFERENCES**

HEALTH POLICY FORUM

The Forum meets on the second Wednesday of each month (September-June) from 8:30 a.m. to 9:30 a.m. in Conference Room 218, Curtis Building, 1015 Walnut Street, Philadelphia, PA. A light breakfast will be served.

September 13, 2006
The Role of Healthcare Quality Ratings in Marketing
Tom DeSanto
Executive Vice President
Aloysius Butler & Clark

October 11, 2006
Improving Health and Lives of Community Members
James O’Hara
Director, Policy Initiatives and the Health and Human Services Program
Pew Charitable Trusts

November 8, 2006
Eliminating Racial Disparities in Treatment
David Smith, PhD
Professor of Risk, Insurance and Healthcare Management
Temple University (ACPE No: 079-999-06-011-L04)

December 13, 2006
Managing the Leadership Capital Portfolio: Lessons from Real Life in Academic Centers
Warren Ross, MD
Senior Client Partner
Academic Health Care Practice, Korn/Ferry International

Health Policy Newsletter Advertising Guidelines

The Health Policy Newsletter is now accepting paid advertising. The Newsletter boasts a readership of nearly 40,000 persons, nationally and abroad. Readers of our newsletter include professionals within diverse segments of healthcare and other industries, including physicians, managed care executives, healthcare policymakers, journalists, and those in academia and the pharmaceutical industry. The Health Policy Newsletter is also available online at: http://www.jefferson.edu/dhp/, which greatly expands our readership and makes it an excellent venue for promoting your activity.

Please contact our office at (215) 955-6969 for more information.
The Fourth Annual North American MD/MBA Conference for program directors, faculty, students, and alumni took place June 23-25, 2006 in Hanover, NH. The conference was sponsored by Dartmouth Medical School, Tuck School of Business at Dartmouth, and the Dartmouth-Hitchcock Medical Center. In keeping with the format of the previous three conferences, including the one hosted by the Department of Health Policy at Jefferson Medical College (JMC) in 2004, the agenda began with a status report from Dr. Maria Young Chandler, MD, MBA, Faculty Advisor for the School of Medicine and the Paul Merage School of Business at the University of California – Irvine.

Dr. Chandler reported that in 2006, 54 of the 125 schools of medicine are partners with schools of business in offering the MD and MBA degrees. When JMC and Widener University admitted their first MD/MBA students in 1993, there were fewer than 10 medical schools with MD/MBA programs. These dual-degree programs represent a response to the need for physicians in leadership positions through the healthcare system, in both the public and private sectors.

With the rapid growth of these dual-degree programs, in 2004, several MD/MBA students developed the National Association for MD/MBA Students (www.md-mba.org). An online survey administered through the association’s web site asked current MD/MBA students why they chose the dual-degree program. Respondents listed the following as their prime motivators: opportunity to serve in a leadership position; job security; expected changes in medicine; opportunity to combine clinical and administrative roles; potential for innovation; and desire to “make a difference.” Current students attending the conference reported that the believed they have a broader vision of the healthcare system their cohorts who did not choose to do an MBA. Some of the physician attendees who completed their MBAs after finishing their medical training said they wished they had the business administration perspective while they were in medical school.

An Inspiring Keynote Address

The conference included a number of speakers and panelists, most of whom are MD/MBAs. Dr. C. Everett Koop, former Surgeon General, and a Senior Scholar at the Koop Institute at Dartmouth, introduced the keynote speaker, Regina Benjamin, MD, MBA, Founder and CEO of La Batre Rural Health Clinic in Bayou Le Batre, Alabama. In her address, “Making a Difference,” Dr. Benjamin described how the skills she developed in her MBA program made it possible for her to not only establish a clinic that serves a disadvantaged population, but to keep it running through two devastating hurricanes, including Hurricane Katrina. “The MBA opened up a whole new world to me. It helped me understand public policy and business issues. The MD/MBA allows you to choose your own path,” she said.

Panel Provides Insights

An industry panel of MD/MBAs provided insight into the multiple career opportunities for dual-degree students. The panelists work in academic medicine, community medicine, pharmaceuticals, insurance, and consulting. The panelists advised dual-degree students to complete residency training, maintain a clinical practice, and find good mentors, regardless of what sector of the healthcare industry they want to pursue.

Peter Mazonson, MD, MBA of Mosaic Consulting in California believes the dual-degree creates more opportunities for innovation and creativity. William Weeks, MD, MBA, Associate Professor at Dartmouth Medical School, wanted to influence more people through policy and health services research, and used his MBA background to accomplish that goal. Amrit Ray, MD, MBA, Worldwide Medical Team Leader at Pfizer Global Pharmaceuticals in New York argued there are more opportunities now than ever for dual-degree graduates to pursue a tremendous variety of careers.

Ten years ago there were a limited number of MD/MBAs, and those few had to be trail blazers. Today the possibilities seem endless.

New Publications from the Department of Health Policy

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nash DB</td>
<td>By the Numbers</td>
<td>P&amp;T</td>
<td>2006;31(7):354</td>
</tr>
<tr>
<td>Nash DB</td>
<td>Buying into Biomedical Informatics</td>
<td>P&amp;T</td>
<td>2006;31(6):298</td>
</tr>
<tr>
<td>Nash DB</td>
<td>Predicting Policy for Personalized Medicine</td>
<td>Biotechnology Healthcare</td>
<td>2006;3(3):7</td>
</tr>
</tbody>
</table>