

ORIGINAL ARTICLE

Description of a Research-Based Health Activism Curriculum for Medical Students

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INTRODUCTION: Few curricula train medical students to engage in health system reform.

AIM: To develop physician activists by teaching medical students the skills necessary to advocate for socially equitable health policies in the U.S. health system.

SETTING: Montefiore Medical Center, the University Hospital of the Albert Einstein College of Medicine, Bronx, NY.

PROGRAM DESCRIPTION: We designed a 1-month curriculum in research-based health activism to develop physician activists. The annual curriculum includes a student project and 4 course sections: health policy, research methods, advocacy, and physician activists as role models; taught by core faculty and volunteers from academic institutions, government, and nongovernmental organizations.

PROGRAM EVALUATION: From 2002 to 2005, 47 students from across the country have participated. Students reported improved capabilities to generate a research question, design a research proposal, and create an advocacy plan.

DISCUSSION: Our curriculum demonstrates a model for training physician activists to engage in health systems reform.

KEY WORDS: medical education; professionalism; health care reform; curriculum evaluation.

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Many have called for a renewal of medical professionalism, raising 2 essential themes.¹⁻⁹ First, physicians must work as patient-centered advocates for each individual, acting ethically and avoiding conflicts of interest to preserve trust in the doctor-patient relationship.¹⁻⁹ Second, physicians should engage in advocacy to improve health care systems to address unmet societal needs.¹⁻⁹ In a recent joint statement, the American Board of Internal Medicine, the American College of Physicians, and the European Federation of Internal Medicine defined professionalism using the principles of social justice, patient welfare, and patient autonomy, calling on physicians to be "activist in reforming health care systems."²

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Statements and editorials alone cannot change behavior: educational changes are also essential to renew professionalism.^{1,3,4,10-14} However, few sustainable curricula exist to train physicians to engage in health care reform.^{10,12} Even curricula that teach health policy tend to describe the mechanics of our system,^{10,13} not the process of changing systems. Research-based health activism is a comprehensive approach to address healthcare system-level problems, using objective data to evaluate solutions and then pursuing change through advocacy.¹⁵

AIM

Our goal was to develop a curriculum to teach medical students the research and advocacy skills necessary to pursue socially equitable health policies in the U.S. healthcare system.

SETTING

We designed and evaluated a research-based health activism curriculum at Montefiore Medical Center, the University Hospital of Albert Einstein College of Medicine, Bronx, NY. Although most sessions took place at Montefiore, students also made site visits to advocacy organizations and other institutions (e.g., Gay Men's Health Crisis, New York Academy of Medicine).

PROGRAM DESCRIPTION

This curriculum was conceived in 2002 by residents from Montefiore postgraduate training programs (S.S.C., J.S.R.) in collaboration with faculty sponsorship (G.S.) as a 1-month elective for medical students in their clinical years. In addition, we were assisted by Public Citizen's Health Research Group (P.L.), a nonprofit consumer-advocacy organization in Washington, DC, and drew from other advocacy curricula, primarily lecture-based courses over a semester or year.^{16,17} Administrative and material support was provided by Department of Family and Social Medicine at Montefiore Medical Center and additional material support was provided by the Soros Foundation.

We offer the curriculum each October when many fourth-year students are making career decisions. Structured curricular hours are intensive, totaling over 100 hours.

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Additional independent time is spent on project development. Students are given no other duties for the month. We recruit students from across the country using a variety of methods: mailings to every medical school, organizational listserv emails, and word of mouth. To apply, students list prior advocacy or research experience, home institution mentors, and community contacts. No students have been refused thus far.

Curricular objectives are for students to: (1) generate an appropriate research question; (2) design, write and present a research proposal; (3) develop, write and present an advocacy plan; and (4) identify career development resources.

We deliver course content in 4 sections: (1) health policy, (2) research methodology, (3) advocacy skills, and (4) physician activists as role models (Appendix A). We developed 6 to 10 sessions to cover appropriate content within each section, each 90 minutes to a half-day in length.

Session facilitators were recruited from multiple institutions and disciplines, including nonprofit advocacy organizations, state and federal government, academic institutions, and journalism. Nearly all facilitators, primarily from the New York City area, volunteer their time and expertise (Appendix A).

The core Montefiore faculty ask facilitators to cover specific content areas and to encourage interactivity in the sessions. Facilitators then collaborate with core faculty to ensure that each session meets its objective and fits appropriately within the context of the curriculum. Knowledge-based sessions utilize methods such as small group discussions, background readings, and homework, while skills-based sessions include role-play, workshops, and videotape review.

The 4 Course Sections

The objective of the "Health Policy" section is to provide students with the knowledge needed to develop appropriate research questions. Topics include the organization of the U.S. health care system, the role of the federal government in health care, the history of insurance, and the health impact of social capital, income, and race. Teaching methods include readings, interactive lectures and small group discussions.

The objective of the "Research Methods" section is to teach students the basic clinical research methods necessary to design a project. Topics include developing a research question, study designs, data management and analysis, and research ethics. Methods include readings, homework exercises, interactive lectures, and small group workshops to discuss student projects.

The objective of the "Advocacy" section is to teach students the concepts and techniques of activism. Given the dearth of such expertise within academic medicine, most facilitators hail from outside medicine, including the Midwest Academy, one of the nation's oldest schools for community activists¹⁸; Gay Men's Health Crisis, a New York City advocacy group; a New York Times health reporter; and Soros Foundation program officers. Topics include issue-based campaigning, coalition building, media relations, and public speaking. Methods include role-playing a cancer screening advocacy campaign, a public-speaking videotape workshop, and small group discussions.

Finally, the objective of the "Physician Activists as Role Models" section is to introduce students to physician activists as role models for their own careers. The section features

intensive discussions with physician activists in the New York City area, providing an opportunity for students to discuss their own career goals.

The Student Project

The curriculum is anchored by a 2 part experiential student project: a research proposal and advocacy plan, each approximately 5 pages in length, weaving together the goals and themes of all course sections around 1 topic of student interest (Appendix B). For the research proposal, students formulate a concise research question, develop a study design, and describe methods for acquiring and analyzing the data. For the advocacy plan, students describe why they chose their issue, develop project goals, and create a strategy plan, including possible coalitions, resources, and tactics. These research proposals and advocacy plans are extensively revised with feedback from core faculty, mentors at students' home institutions, and peer classmates, and are facilitated through multiple group sessions and independent project time. Mentors are expected to assist students in completing the proposed project after the intensive month is over. We expect that students need 1 to 2 years after the course to complete their projects.

At the end of the course, these proposals are presented in both oral and written form to faculty who provide feedback. All session facilitators and adjunct faculty are invited to this capstone presentation of the students' work.

EVALUATION

Methods

The curriculum is evaluated using surveys that include Likert-scales, multiple choice, and open-ended questions (Appendix C). Participants in 2003 and 2005 completed pre- and post-course surveys assessing curriculum expectations, session objectives, instructor quality, success at meeting educational objectives, and career goals. The main educational objectives from pre- and postcourse surveys were self-assessed ability to generate a research question, design a research proposal, and create an advocacy plan. Data analysis was performed using SPSS version 11.5 (SPSS Inc., Chicago, IL). Pre- to postcurriculum trends were examined with paired analysis using the Wilcoxon Signed Rank test. All statistical tests were 2-tailed.

Results

Over the 2002 to 2005 period, 47 students enrolled from medical schools representing all regions of the country, 32 (68%) from outside the New York City region. Sixty-six percent were female, 49% identified as nonwhite, and 81% intended to begin training in a primary care specialty after medical school. Ninety-four percent were in their fourth year of medical school.

All 26 students in 2003 and 2005 completed pre- and postcourse surveys. All 26 students "agreed" or "strongly agreed" in postcourse surveys that the curriculum taught them how to generate a research question, design a research proposal, and create an advocacy plan. Significantly more students intended to pursue careers that "significantly" involved research after compared with before the curriculum (42% vs 12%, respectively, $P=.004$; none indicated "exclusively"). More than half the students intended to pursue

Table 1. Students' expectations about career activities and opinions on the state of medicine (n=26)*

Items	Precourse	Postcourse	P value
Expect to be involved in research [†]	2.04	2.42	< .01
Expect to be involved in advocacy [†]	2.54	2.62	.56
Medicine will not be as financially rewarding in the future as in the past	2.23	2.31	.56
Physicians will not receive the same respect from society in the future as they have in the past	3.19	3.62	.04
Changes in the health care system are impairing physician independence	2.12	2.15	.74
The administrative requirements of the health care financing system are too burdensome on physicians	2.23	2.08	.16
Physicians' legal liabilities and the high cost of malpractice insurance are major problems	2.08	2.27	.32
The demands of a physician's work interfere too much with family relations	3.08	2.81	.22
The demands of a physician's work interfere too much with other interests and pursuits	3.19	2.73	.02
Specialists are less important than primary care physicians	3.62	3.54	.72
Physicians who work hard will always be able to build a successful practice	2.77	2.58	.27
Having interesting and intelligent colleagues is a major benefit of being a physician	1.88	1.58	.18
Access to medical care continues to be a major problem in the United States	1.12	1.08	.66
Everyone is entitled to receive adequate medical care regardless of his or her ability to pay	1.12	1.04	.32
Physicians have an opportunity to exercise greater influence on health promotion and disease prevention	1.19	1.08	.18
Advances in the biomedical sciences and their application to the care of patients will make the practice of medicine more challenging and rewarding in the future	2.23	2.27	.96
Cure of disease is the most important purpose of medicine	3.73	3.85	.43
Relief of patient suffering is the most important pursuit of medicine	2.31	1.92	.11

*2003 data not collected.

[†]Ratings for the 2 expectation items were 1, "Limited Involvement"; 2, "Somewhat Involved"; 3, "Significantly Involved"; 4, "Exclusively Involved." Ratings for all other items were based on a 5-point Likert scale: 1, Strongly Agree; 2, Agree; 3, No Opinion; 4, Disagree; 5, Strongly Disagree.

careers that "significantly" involved advocacy before the curriculum, and this did not change after the curriculum (54% vs 62%, respectively, $P=.56$) (Table 1). Students' opinions about the state of medicine did not change, except that students were more likely to agree that physicians will not receive the same respect by society in the future as in the past and less likely to agree that the demands of a physician's work interfere too much with other interests and pursuits.

All students in all 4 years completed a research proposal; some students worked in collaboration with one another for a total of 43 projects (Table 2). Student topics included: designing a hunger assessment tool for community-based clinical practice; assessing and intervening to reduce waiting times at a public hospital pharmacy; and examining the disease progression of incarcerated people with HIV after release. Of the 43 student projects, 35% were completed, 16% are in progress, and another 21% are in progress but have been modified from their original proposal. Sixteen percent of the projects were never completed, and we were unable to ascertain the status of 12%.

Overall, open-ended assessments were positive and enthusiastic. Examples of comments include, "The best course I have had in medical school," "Thank you for putting this course together," "This was the best month of my medical school career," and "Enlightening, inspiring, and rejuvenat-

ing." Five sessions were identified as most valuable: Federal Government and Health Care, U.S. and Universal Coverage, Organizing and Strategy Building, Advocating for Choice, and Coalition Building (Appendix C, items 2, 3, and 4 list the 31 sessions).

DISCUSSION

The Montefiore curriculum in research-based health activism represents a multidisciplinary model for developing physician activists and remains successful despite the departure of 2 of the original core faculty. Students agreed that we successfully met our main objective of teaching the skills of research-based health activism.

Prior advocacy courses were primarily lecture-based and often consisted of a series of weekly lectures from activists over the course of a semester or year. The Montefiore curriculum expanded on existing health activism courses by recruiting students from across the country for 1 intensive month, recruiting a faculty from a wide range of disciplines, and including an explicit focus on career development. Finally, the student project unified over 100 hours of diverse curriculum through active learning.

Over the 4 times this curriculum has been offered, it is clear that enthusiastic students are most responsible for its sustained success. However, by providing a varied curriculum to satisfy diverse interests, assigning a core faculty mentor to each student, recruiting an epidemiologist to make herself available to students, and by expanding the experiential hands-on workshops, we have been able to make incremental improvements. Students are currently enrolling for the 2006 course.

Our preliminary evaluation of this curriculum is limited by the paucity of existing evaluation models for focused

Table 2. Current status of student research projects (n=43)

Status	Number of projects (%)
Project completed	15 (35)
Project in progress	7 (16)
Project changed significantly	9 (21)
Project not completed	7 (16)
Unknown status	5 (12)

research and advocacy curricula and formal evaluations only being done in 2003 and 2005. We have since revised our pre- and postcourse surveys, attempting to measure course objectives, student satisfaction, and opportunities for improvement. Future iterations of our evaluation will systematically obtain information on students to document career intentions and advocacy efforts following departure from the course.

The social culture of the course was critical to our efforts, anchored by collaborators from a wide range of disciplines, ongoing social events with students and faculty, and mutual support among a committed group of students. Students leave this course not only excited about their potential as physician activists, but also with a cohort of colleagues who share that enthusiasm. Unfortunately, our students return to the culture of medicine at large, noted to be an atmosphere often not supportive of activism.^{1,19,20} Students need support to preserve their enthusiasm for being physician activists. Initial efforts should include dissemination and expansion of curricular efforts in health activism. As Jordan Cohen, president of the American Association of Medical Colleges, said recently, our future physicians should be "the best, the brightest, and the most idealistic and public-spirited of young people."²¹ Our curriculum provides an example of a successful model to focus the idealism of these young physicians-in-training toward health systems reform.

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Dr. Cha's contact information is provided for correspondence purposes only; his contribution to the cohort is based on

work prior to joining the Committee on Government Reform of the U.S. House of Representatives.

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Supplementary Material

The following supplementary material is available for this article online at www.blackwell-synergy.com

Appendix A
Appendix B
Appendix C