

Capturing Medical Students' Idealism

Janice K. Smith, MD, MPH

Donna B. Weaver, MD

Departments of Family Medicine and Preventive Medicine & Community Health, The University of Texas Medical Branch, Galveston, Tex

ABSTRACT

PURPOSE Students' idealism and desire to work with underserved populations decline as they progress from preclinical training through clerkships and residency. With an increasingly diverse population and increasing health disparities, academic health centers need to incorporate changes in their curricula to train socially responsible and idealistic physicians. International electives can provide valuable learning experiences to help achieve these goals.

METHODS Sixty-six preclinical medical students at the University of Texas Medical Branch participated in an international elective from 1997 to 2005. After 1 week of didactics, they spent 3 weeks as part of a multidisciplinary medical team in rural Nicaragua. Postelective questionnaires were administered. From students' responses, we identified common learning themes and grouped them under the categories of attitudes, awareness, and skills. Limitations included a self-selection bias, lack of a control group, and limited follow-up.

RESULTS After the elective, students had an increased interest in volunteerism, humanitarian efforts, and working with underserved populations both in the United States and abroad, as well as more compassion toward the underserved. Students also reported a heightened awareness of social determinants of health and public health, and a broadened global perspective, as well as increased self-awareness.

CONCLUSIONS Our findings illustrate that a well-structured, mentored experience in international health can have a positive impact on preclinical students' attitudes, including their compassion, volunteerism, and interest in serving underserved populations, all measures of idealism.

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INTRODUCTION

Idealism is defined as "the cherishing or pursuit of high or noble principles, purposes, or goals."¹ In medicine, these aims traditionally include relief of suffering and improved quality of life for all humankind, and are measured by volunteerism, service to underserved peoples, and concern for the health of society as a whole. Shaywitz and Ausiello² assert that these ideals are what define us as physicians and what attract students to medicine.

Several studies have documented declining attitudes and idealism in medical students and residents as they progress through their medical training. These changes include decreased interest in serving underserved populations, decreased sense of physician responsibility for the health of all, and declining attitudes toward the medical profession in general.³⁻⁶ With an increasingly diverse patient population, including many persons who lack access to health care, and the recognition of growing health disparities, society has an even greater need for physicians with idealistic and altruistic values.

Both the Institute of Medicine and the Association of American Medical Colleges (AAMC) have recently released reports on the future of academic health centers (AHCs) and their role in training physicians to be responsive to the changing needs of society. These reports emphasize the importance

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CORRESPONDING AUTHOR

Janice K. Smith, MD, MPH
Department of Family Medicine
The University of Texas Medical Branch
301 University Blvd
Galveston, TX 77555-1123
jksmith@utmb.edu

of promoting humanistic and global perspectives in medicine, and ensuring that physicians are capable of providing culturally sensitive and appropriate care.^{7,8}

The Commonwealth Fund Task Force, which was commissioned by the AAMC, states: "AHCs should ensure that medical students and residents have appropriate training and experience in providing care to the poor, uninsured, and racial and ethnic minorities. The goal of these activities should be to reduce the disparities in health care use and improve outcomes for these populations."⁹

At the same time, AHCs' social and historic mission to provide care to indigent and underserved populations is being severely challenged by the financial burdens facing them in this time of increased competition, managed care, and declining resources.⁹ This situation has the potential to further reduce students' opportunities to learn how to provide care for these populations, and to negatively affect their idealism.

AHCs need to encourage and support innovative curricula that can help address these issues in a cost-effective way. International and community-based rotations and volunteer opportunities have been shown to increase students' interest in working with underserved populations, their cultural and social awareness, and their interest in primary care, prevention, and public health.¹⁰⁻¹⁸ Such programs also model humanism, idealism, and service.^{2,19,20} In spite of this evidence, only 22.3% of students completing medical school in 2004 had participated in an international elective, and only 29.7% had participated in a field experience in community health.²¹ The percentage of students who participated in delivery of services to underserved populations decreased from 69.3% in 1994 to 62% in 2004.^{21,22}

Family medicine departments have been leaders in offering both medical school electives and residency tracks in community and international health^{23,24}; however, these opportunities are not universally available at all AHCs, and the electives are often reserved for fourth-year students, who have already decided on a specialty and career, and are heavily burdened by debt.^{25,26} Opportunities to capture humanistic values and attitudes need to be available early in students' medical education and nurtured throughout their training.²⁷ In this article, we describe an international health elective offered at the University of Texas Medical Branch (UTMB) to students completing their first year of study and its influence on their attitudes, awareness, and skills.

METHODS

We obtained a waiver from the institutional review board of UTMB for this evaluation, which was conducted from 1997 to 2005. Our preconceptions

included the belief that the elective would have a positive impact on students' knowledge of global health issues and would promote an increased interest in primary care.

The setting was the Department of Family Medicine at UTMB and the Maria Luisa Ortiz Centro de Mujeres, a community health clinic run by a local women's cooperative in Mulukuku, Nicaragua. UTMB is the oldest medical school in Texas; more than 200 new physicians graduate from the school each year. It has an integrated 4-year medical curriculum. During the first 2 years, traditional basic science disciplines are taught in an interdisciplinary, clinically focused, problem-based learning format, whereas clinical skills development, clinical reasoning, and medical ethics are emphasized in a longitudinal Practice of Medicine small-group format.

Participants were medical students at the end of their first year of studies enrolled in an elective called Primary Health Care in Developing Countries. Students were selected for the elective by the course directors based on an application and personal statement. The elective begins with 1 week of lectures on international health, primary health care, public and population health, and a skills workshop. Students spend the next 3 weeks in rural Nicaragua, working as part of a multidisciplinary volunteer medical and dental team, in collaboration with local Nicaraguan health care professionals. The course objectives are listed in Table 1, and the curriculum is shown in Table 2. The team includes physician and nurse faculty, and community-based professionals. Students actively participate in triage, vital signs evaluations, interviewing and examining patients, and developing treatment plans under the supervision of faculty. They assist with minor procedures, take night call for emergencies, rotate through the pharmacy, and travel to satellite clinic sites. Case discussions and informal teaching occur throughout the day and evenings, as faculty, other professionals, and students are all housed on site. Students submit a written report, give an oral presentation, or both at the end of the elective.

Table 1. Primary Health Care in Developing Countries: Course Objectives

1. Learn how environmental, political, and socioeconomic issues affect the health of a population
2. Learn basic epidemiologic principles important in evaluating the health of a community
3. Compare and contrast health care delivery systems in the United States and developing countries
4. Develop cultural awareness and sensitivity
5. Gain a broad view of and concern for world health issues
6. Develop an understanding of primary health care and community-oriented primary care
7. Learn about the benefits of primary care training for careers in international health and community health

Table 2. Primary Health Care in Developing Countries: Course Outline

Week 1 Lectures and Workshops	Weeks 2-4 Practicum
Public Health/Epidemiology	Work in a rural health clinic in Nicaragua
Infectious Diseases in the Tropics	Assess health care needs of the population
Community Health Assessment	Take histories/perform examinations and procedures under physician supervision
Clinical Skills Workshop	Assist in pharmacy
Travel Health and Safety	Work with local health promoters in health education
Cross-Cultural Competence	Participate in epidemiologic study (optional)
Nutrition/Malnutrition	Prepare written report and/or presentation, evaluations, and debriefing
Diarrheal Diseases and Dehydration	
Maternal/Child Health	
History, Politics, and Religion in Nicaragua	
Complementary and Alternative Medicine	

The cost of the elective includes 3 weeks of faculty time for 1 to 2 faculty members. Students and faculty are responsible for their travel expenses, which are \$1,050 per person. A majority of students receive some financial support (\$500-\$1,000), either through the Dean of Medicine's Global Health Scholarship fund or through the Hispanic Center for Excellence. The Department of Family Medicine provides approximately 60 hours of administrative support.

Students complete a course evaluation form, which includes several open-ended questions for qualitative feedback (Table 3), on the last day of each elective period. We analyzed for common themes students' responses to 4 of the questions on this form: (1) What was the single most important thing you learned on this elective? (2) What did you like most about this elective? (3) What did you like least about this elective? and (4) Do you think this elective will have an impact on your further medical education and career choice, and if yes, in what ways? The 2 authors reviewed the responses independently and identified common themes based on the frequency of similar responses. We compared these themes and resolved differences by consensus. We then categorized the themes under attitudes, awareness, or skills. Responses that were not related to 1 of these categories were placed in a "miscellaneous" category. To assess the robustness of our initial interpretation, an independent analyst reviewed the raw data and developed a very similar list of common themes.

RESULTS

Sixty-six students participated in the elective, and 62 completed postelective evaluations. In 2000, no formal elective was offered, and in 1999, students participated in the clinical activities but not the pretrip orientation course and did not complete postelective

evaluations. Narrative information was missing from 10 questionnaires. A total of 59% of participants were female.

Attitudes, Awareness, and Skills

As common themes emerged, the majority fell under the broader categories of attitudes, awareness, and skills.

Attitudes included idealism, which was measured by interest in volunteerism and humanitarian efforts, and concern for the underserved, exemplified

by such responses as, "This has strengthened my desire to do work with organizations like Red Cross and disaster relief and help out in poor areas." Other attitudes included compassion and humility, as expressed, for example, by the response "I feel it made me more compassionate toward the underserved." Attitude toward teamwork was also a strong theme, with one student stating, "I learned how to work well with others and how much more can be accomplished as a team." Several students noted their favorite part of the elective was working and learning together with professionals and students from a variety of disciplines.

Under the category of awareness, there were several robust themes. Students noted an increased awareness of the social determinants of health and that "disease is a product of living conditions." They also expressed an increased global perspective, with one writing, "The world is bigger than the United States," and "I have an entirely new appreciation and awareness of global health issues ... this has been a milestone and turning point in my medical training." Students also expressed a heightened awareness and understanding of how cultural differences affect health, and the difficulty of communicating across lan-

Table 3. Open-Ended Questions From the Postelective Evaluation Form

1. What was the single most important thing you learned on this elective?
2. What did you like most about this elective?
3. What did you like least about this elective?
4. Do you think this elective will have an impact on your further medical education and career choice? If yes, in what ways?
5. Would you recommend this elective to a fellow student?
6. Are you interested in future international electives during medical school?
7. What recommendations do you have for improving this elective?

guage and cultural boundaries. "It [the elective] helped me understand the influence culture can have on how a patient perceives and carries out doctor's orders and advice," one student commented. Students reported an increased confidence in and appreciation of the knowledge that could be gained from a careful history and physical examination, and its importance in light of a lack of resources and technology in this setting. "It will help me appreciate medicine in its simple form—the H&P [history and physical]," one student wrote. "It gave me ... a greater appreciation for diagnostic tools and resources here while learning how to treat based solely on history and physical findings," another commented. Students also expressed a better or renewed understanding of their own motivation for a career in medicine and of the rewards of serving others. One student wrote, "It [the Nicaragua elective] reinforced the ideals I had about medicine when I entered medical school, such as care based on ability to heal and not ability to pay, and the rewards of medicine aside from money and prestige"

The third broad category was skills. Students reported improved history and physical examination skills, improved communication skills, and specifically increased Spanish language skills. Comments included, "I learned how to gather a history and physical despite significant cultural/language barriers," and "They [the doctors] made sure that every student was learning diagnostic skills as well as patient interaction skills."

Educational and Career Choices and Service

Ninety-six percent of students felt that the elective would have an impact on their future medical education and career choice, with several indicating a new interest in primary care and public health. "I also ... appreciate the insight I got into what a career in family practice entails. I don't think I had previously realized the broad scope of FP [family practice]," one wrote. "Yes, it has made me much more aware of the world around me and has piqued my interest in public health ...," another wrote. Responses to what students liked least about the elective were related primarily to environmental factors, such as the heat, living conditions, and food, and to financial cost.

A majority of students in the 2003-2005 cohorts became active volunteers at a local student-run free clinic in the Galveston community; one is currently director and another is director-elect. A 1998 participant in the elective, on his return, founded Frontera de Salud, a service organization run by medical, nursing, and allied health students committed to advocacy and to bringing primary health care to the underserved on the Texas-Mexico border.

DISCUSSION

Lessons Learned

Our experience illustrates how a well-structured, mentored experience in international health in a developing country can have a positive impact on preclinical students' attitudes, including compassion, volunteerism, and interest in serving underserved populations, all measures of idealism. Students experience the rewards of helping others while working side by side with other professionals modeling humanitarian and altruistic values. More importantly, they have the opportunity to reflect on their own values and how they can incorporate humanitarian and volunteer work into their future practices.

Through immersion in a different culture, environment, and health care system, students' awareness of social determinants of health and global health issues is increased. Students are introduced to an interdisciplinary approach to providing health care and gain an appreciation of the roles of other members of the health care team and community.

Our findings support the growing literature on the educational impact of international electives. These earlier findings include an increase in compassion, volunteerism, and interest in working with underserved populations^{10,12,14,17,28}; increased cultural awareness and competence^{10,11,15,17,29}; heightened awareness of social determinants of disease and global health^{10,14,15,17,29}; and increased interest in primary care and public health.^{10,14,15,17,29,30} Several authors have also noted that students gain improved history and physical examination skills, and learn how to practice medicine with limited resources.^{10,17,29} An increased self-awareness and the opportunity to gain insight into the human side of medicine have also been reported.^{2,14,19}

Community-based electives and other structured opportunities for students and residents to work with underserved, homeless, minority, or otherwise disadvantaged populations in the United States also have a positive impact on students' attitudes toward volunteerism and working with underserved populations.^{13,18,27,31} The use of academic preceptors in volunteer community clinics "reinforces the value and viability of professional volunteerism,"²⁷ a benefit that is also true of international rotations.

We do not know yet whether our international elective will ultimately affect students' career choices, but we do know that participation in international electives can increase students' awareness of opportunities and careers in primary care, public health, international health, and work with underserved populations.

There is considerable overlap in the concepts of idealism, humanism, and professionalism in medicine, and it may not be possible to completely separate

these concepts when evaluating students' attitudes and behaviors.^{32,33} Whereas open-ended postelective evaluation questions can provide rich narrative information, few reliable, valid, and practical tools to measure attitudes and changes in those attitudes have been developed, adequately studied, or both.³⁴ There is a critical need for research directed at developing and validating appropriate tools. A controlled prospective study that includes a baseline assessment of students' attitudes, changes in those attitudes at the completion of the elective, and the long-term impact on career choice and involvement in caring for underserved populations will be a valuable next step. Increasing the availability and quality of these electives throughout AHCs and ensuring that students have the opportunity to practice the lessons learned in international rotations when they return home are also essential.

Limitations

This study had a retrospective, observational design, with no comparison group. A student self-selection bias, as well as bias on the part of the course directors who select participants, existed. Validated instruments were not used; however, the same postelective evaluation form was used for all participants from 1997 onward, and common themes were carried through each year. A reliable instrument to measure idealism has not been identified. Preelective and postelective data regarding career choice were not collected on all participants, and long-term follow-up data are not yet available. The study was also limited by the usual risks of generalizability of studies conducted at just 1 medical school.

Implications

Major changes in the way AHCs educate future physicians are needed to successfully meet the needs of individual patients, communities, and our global society. To accomplish this goal, AHCs must encourage and support innovative curricula and programs that foster idealism, cultural competence, and social responsibility. Family medicine departments serve as leaders in providing and evaluating international and community educational activities, and their experience can help guide this effort.

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