

Students Use Marketing Techniques to Educate Patients

The Institute of Medicine estimates that nearly half of adults lack the basic ability to understand health care materials. The cultural diversity of today's patient population makes that problem even more acute. But medical schools typically do not train students to help patients bridge the health literacy gap. And although medical students are expected to develop a bedside manner, doctors may also lack basic communications skills.

To tackle the problem, researchers at the University of Pittsburgh School of Medicine borrowed ideas from the world of business—specifically, the marketing profession. Social marketing applies commercial marketing principles for positive social purposes. Brian A. Primack, M.D., Ed.M., assistant professor of medicine and pediatrics at Pittsburgh, leads a team that draws on the principles of social marketing to train future doctors to interact effectively with patients from various cultural perspectives who may have limited health literacy.

Primack's group wondered whether it was possible to teach medical students more about health literacy while showing them how to apply basic marketing concepts to better meet patients' needs. The underlying goal was to help students learn how to communicate with patients more clearly, on the patient's level, with more sensitivity to the needs of diverse individuals. The researchers developed an innovative curriculum in which students learn to apply the power of marketing in developing health-related brochures relevant to their clinical experiences. In 2006, all 147 of Pittsburgh's first-year medical students participated in the program's pilot phase. The training came during their second semester "Clinical Experiences" course.

The curriculum was part theory, part hands-on project. "The didactics involved two hours of teaching medical students about health literacy and the impact of poor health literacy on the medical system," Primack said. Students also studied the concept of social marketing and "how one can use the techniques of marketing for pro-social services," he said. They also received training in the fundamentals of brochure writing and design. After that, students were given a long-term assignment tied to their first clinical experience. Their task was to identify a health topic they felt was not well communicated to patients, and then develop a brochure that would share that information more effectively.

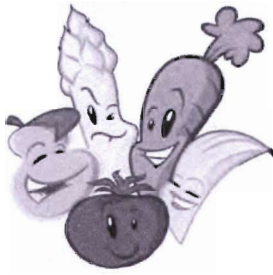
The project sparked considerable creativity. Among the student-produced brochures, for example, was "Livin' la Vida con Vacunas". Focused on early childhood vaccinations, the brochure targeted Hispanic women likely to be mothers of young children. "Real Men Wear Helmets" explained the risk of head injuries to adult males aged 18 to 24. "Sister to Sister: The Truth About Sex" outlined healthy reproductive habits for teenaged African American girls. Apart from brochures with tips for sunburn, eating well while traveling, and the benefits of walking, others offered up frank talk about tattoos and piercing, cancer, and hearing loss from personal audio players. Several brochures were selected for professional production and distribution in local hospitals and doctors' offices.

Primack and his colleagues measured students' knowledge of health literacy. After training, Primack said, students "had statistically significant increases in

their knowledge of health literacy," not to mention enhanced knowledge of social marketing and techniques of brochure design. Primack also reports that students showed statistically significant increases in their overall comfort with patients. (He's quick to say, though, that those upticks cannot be ascribed definitively to the curriculum; they may have resulted from outside factors.)

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Medical students used marketing theories to create brochures for patients.

Results of the pilot curriculum were reported in "Social Marketing Meets Health Literacy: Innovative Improvement of Health Care Providers' Comfort with Patient Interaction," published in the September 2007 issue of the journal *Patient Education and Counseling*. Primack's coauthors included Thuy Bui, M.D., medical director for the program for health care to underserved populations in Pittsburgh's medical school and Carl I. Fertman, Ph.D., M.B.A., from the department of health and physical activity in the university's school of education. The work was supported by a University of Pittsburgh award for innovation in education and was funded by the provost's office there.

Having tested the program with medical students, Primack has now been commissioned to start similar efforts in Pittsburgh's schools of nursing and pharmacy. "Students really like the curriculum," he said, "because it's very applied." They realize, he said, that the program helps pinpoint gaps in a clinic's outreach to

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patients, particularly among certain demographic subsets, and helps those patients take specific steps to better the situation. In their paper, Primack and his colleagues concluded that "brief and inexpensive educational interventions such as ours can be effective in improving key variables that may be related to students' comfort in interacting with a diverse cohort of patients." As a result, the authors suggested, their approach could help advance the institute's goal of training health care providers to provide competent care sensitive to the needs of those with limited health literacy.

As for whether the Pittsburgh project can be a model for other schools, Primack said "time and further research will tell whether this type of education improves outcomes related to health and the relationship between the doctor and the patient." But he knows well that it will be difficult for social marketing to wedge its way into a medical school curriculum already jam-packed with requirements. "The fact is that medical schools are very overloaded," he said, and "there is a lot of competition for student time."

Still, Primack noted that the Institute of Medicine estimates that the cost of health illiteracy may be pushing \$70 billion a year in increased hospitalization and overuse of emergency rooms—a staggering figure that alone argues in favor of the type of program that he and his colleagues developed. "I think it's important to get on board with health literacy, but also to get on board with this innovative method of teaching it to people," Primack said. "I'm not sure what it's going to take just to move to the next level, but it definitely has the potential."

—By Stephen Pelletier, special to the Reporter