

Social Marketing: Application to Medical Education

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Medical education is often a frustrating endeavor, particularly when it attempts to change practice behavior. Traditional lecture-based educational methods are limited in their ability to sustain concentration and interest and to promote learner adherence to best-practice guidelines. Marketing techniques have been very effective in changing consumer behavior and physician behavior. However, the techniques of social marketing—goal identification, audience segmentation, and market research—have not been har-

nessed and applied to medical education. Social marketing can be applied to medical education in the effort to go beyond inoculation of learners with information and actually change behaviors. The tremendous potential of social marketing for medical education should be pilot-tested and systematically evaluated.

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Education is often a frustrating endeavor, particularly when it attempts to change behavior. Medical educators rely primarily on objective, data-based arguments in their appeals to students and physicians, with mixed and frequently disappointing results.

Lecturers have been decrying the use of antibiotics in upper respiratory tract infections for decades. However, antibiotic abuse in the treatment of these infections continues, as does the ritual of recurrent lectures on the subject. Reductions in cardiovascular morbidity and mortality have long been associated with use of thiazide diuretics and β -blockers in the treatment of hypertension. The newer calcium-channel blockers and angiotensin-converting enzyme inhibitors have not been shown to produce these salutary outcomes; nonetheless, they are the first-line treatment chosen by vast numbers of physicians, outselling diuretics and β -blockers in most markets. Incorporation of evidence-based guidelines into clinical practice has been limited for many chronic illnesses, including hypertension (1), management of upper respiratory tract infections (2), hypercholesterolemia (3), asthma (4), diabetes (5), and cancer (6). Rather, scientifically unsupported information used in drug advertising has been shown to have greater influence on physician decisions than the scientific literature (7).

This should come as no surprise to medical educators who are anecdotally aware of the limited effectiveness of traditional didactics. Research confirms that traditional didactic-based lectures are not the most effective teaching tools. Given that the average medical student maintains maximum concentration for only 15 minutes (8), the question of how medical educators can convey the most important evidence-based data and influence appropriate practice patterns is an important one.

SOCIAL MARKETING IN THE CORPORATE WORLD

The corporate world has successfully applied the science of marketing to the commerce of ideas, a process called “social marketing” (9). In 1952, G.D. Weibe posed the question, “Why can’t brotherhood be sold like soap?” (10). For the next several decades, the business world expanded the scope of marketing from a simple quid pro quo exchange of money for product to a process that meets the psychological and social needs of the consumer (11). Although humanist physicians may disdain Madison Avenue tactics, few can argue with their results in changing consumer behavior.

Michelin, for example, does not delineate the features and benefits of its tires but instead focuses on what is “riding on” their tires. A cherubic infant in a mobile tire appeals to universally admired sentiments like parental responsibility, love, and concern—which is what the consumer is demonstrating when he buys more expensive Michelin tires. From these advertisements, we learn nothing about the product; we remember the lovely child absurdly sitting in a tire, a warm “Michelin image.” DeBeers does not sell diamonds; it sells timeless love and secure relationships. We see the words “A diamond is forever” as a man and woman embrace in silhouette. McDonald’s almost never focuses on the quality of its hamburgers or their ingredients. Rather, it sells family values and togetherness. Taking the family to McDonald’s is the right thing to do because it brings the family together; kids ask to go there because the restaurants provide gifts and, often, a playground. The devoted parent takes the family to McDonald’s.

Patients also are clearly the target of social marketing. Advertisements for sildenafil (Viagra, Pfizer, Inc.,

New York, New York) never mention the penis or sexual intercourse. Instead, a handsome middle-aged conservative couple is seen gracefully dancing; they must be married, they are in love even after all those years together, they are a family. Ads for minoxidil (Rogaine, Pharmacia Corp., Peapack, New Jersey) inform us that to be fully masculine, men must have hair on their heads. Commercials for famotidine (Pepcid, Merck & Co., Inc. Whitehouse Station, New Jersey) bring us an elderly father and his attractive daughter at a baseball game. She wants to buy them hot dogs, like she always did in her younger days, but his stomach will no longer tolerate hot dogs. Pepcid will prevent his heartburn and keep them together as a sharing family, recalling the good old days.

The clinical encounter between patient and physician is complex. Ostensibly, the physician makes decisions in the dispensation of drugs and devices, and the patient, or consumer, complies. The physician is a rational, educated agent whose decisions are objective and informed—but is this the case? Educators appear to be committed to that view, but marketers don't believe it.

How can one explain the startling success of direct-to-consumer advertising of prescription drugs? Loratadine (Claritin, Schering-Plough, Kenilworth, New Jersey) became the number-one-selling antihistamine in the United States on the strength of such marketing (12). Similarly, several lipid-lowering drugs and various gastric acid inhibitors have had remarkable sales increases in association with initiation of such advertising. What is going on here? Does the patient tell the physician what he or she should be taking and the physician responds, despite lack of scientific evidence to support most of the requests? Is customer satisfaction trumping professional judgment? Do time constraints make it impractical to argue or educate the patient? Does the physician want to be loved or fear rejection?

Educational seminars and junkets sponsored by drug companies have been shown to have dramatic effects on prescribing behavior. Orłowski and Wateska (13) studied physicians who were weekend guests of a drug company-sponsored educational seminar. Before and after attending the seminar, the physicians rejected the idea that their prescribing behavior might be influenced by the company's sponsorship. However, sales of that company's product increased 60% among physicians who attended the seminar.

Clearly, the marketing community has developed insights and approaches to behavioral change that could be important to medical educators. Emotional, "right-brain" appeals may appear counter to medical culture or unethical to professionals and medical educators, but it is time to abandon such an elitist perspective. If appeals to self-esteem, escapism, sexuality, love, guilt, acceptance, elitism, family values, and the many other emotional levers used by marketers would increase our effectiveness as educators, we should learn to use those levers rather than disdain them. If the skillful use of symbols, color, metaphors, and other marketing devices would make us more effective as educators, we should adapt them to our professional objectives. Medical educators have begun to realize the limitations of traditional lecture formats and are using multimedia presentations (14), standardized patients (15), and computer and Internet-based modules (16), all with demonstrable benefits in retention of information and learner satisfaction. However, the powerful techniques of social marketing have yet to be harnessed by medical educators.

SOCIAL MARKETING AS AN EDUCATIONAL TOOL

Social marketing techniques can be briefly summarized into five steps. The first step is *goal identification*. Successful marketers have objectives and state them clearly up front, whether the goal is to get consumers to drink more coffee or buy a new car. Goals and objectives will later be used to evaluate process measures. The second step is *audience segmentation*: One must identify a target audience. Are you trying to sell to young, single, adult men; senior citizens; or children? The third step is *market research*. Social marketers perform rigorous formative research of the target audience (through focus groups, surveys, and interviews) to determine their values, concerns, aspirations, needs, and knowledge. The fourth step is *development and implementation*. On the basis of the target audience's concerns and needs, advertising, labeling, and other marketing techniques are developed. The final step is *evaluation*. Using surveys of consumer satisfaction, ideas, and sales, marketers evaluate how well the program goals and objectives were met.

The five components of social marketing could be adapted to medical education in the following manner.

Goal Identification

Traditional goals and objectives in medicine focus on content, competency, and educational outcomes. In the social marketing approach, goal identification focuses on behavior: for example, "Students will prescribe angiotensin-converting enzyme inhibitors to patients with systolic dysfunction." Content, competency, and educational outcomes are still emphasized, but the goal is to change behavior.

Audience Segmentation

The target of the message must be clearly defined; for example, are they first-year medical students or mid-career professionals?

Formative Research

Learn as much about the knowledge base, educational needs, ideas, concerns, belief systems, and barriers to learning of the target audience as possible. Focus groups are an effective way to evaluate the pedagogic needs of learners.

Development and Implementation

If, for example, the target audience needs to learn about angiotensin-converting enzyme inhibitor dosing for patients with systolic dysfunction, learns best from visual aids and case presentations, and maintains concentration longer when engaged in dialogue with other learners, a teaching plan can be developed accordingly.

Evaluation

The objectives outlined above should be evaluated as process measures. Pretests and post-tests can be used to evaluate knowledge, and electronic medical record monitoring or chart review can be used to evaluate practice patterns. Clearly, the strongest study design would be a randomized, controlled trial comparing social marketing techniques with more traditional methods.

To paraphrase the Hallmark greeting card commercial, do we educators "care enough to do the very best"? Or are we bound by convention, culture, and professional indoctrination to proceed in our ineffectual ways? Must we endure more decades of lectures on the scientific arguments against use of antibiotics in most upper respiratory tract infections?

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