

P E R S P E C T I V E

Advertising And Prescription Drugs: Promotion, Education, And The Public's Health

The proliferation of medical advertising is a symptom of the nation's all-against-all vision of medicine as just another commodity.

by Jerry Avorn

ABSTRACT: The data presented by Joel Weissman and colleagues and by Robert Dubois do not justify the conclusions that the effects of pharmaceutical promotion are beneficial. Among consumers of direct-to-consumer advertising (Weissman and colleagues), those heavily influenced by such promotion were no more likely than others were to have new conditions diagnosed or confirmed and were much less likely to have laboratory studies ordered or lifestyle changes recommended. A second study (Dubois) arguing that drug advertising improves the appropriateness of prescribing relies on unconvincing ecological arguments. A greater presence of noncommercial, public health-oriented communication would make a more useful and cost-effective impact on the nation's health.

HEALTH AFFAIRS has published on its Web site two papers on the effects of the promotion of prescription medications. The first, by Joel Weissman and colleagues, focuses on direct-to-consumer advertising (DTCA). Funded primarily by a consortium of pharmaceutical companies, the study concludes that the practice is benign at worst and probably beneficial to patients. The second, by Robert Dubois, funded by Merck and Company, concludes that drug promotion in general—both to physicians and to consumers—seems to act as a kind of quality control for clinical decision making, reducing variation and enhancing the appropriateness of prescribing. It is not clear that the data presented justify either conclusion.

A former Food and Drug Administration (FDA) commissioner once asked whether drug

promotion to consumers is “misleading in a way that constitutes a public health hazard.”¹ In the disarmingly simpleminded black-and-white thinking that sometimes characterizes regulatory thinking, the agency decided that it was not. But a more interesting and important question is what effect drug advertising (now approaching \$3 billion per year for consumer promotion alone) has on several aspects of the U.S. health care system, from medical education to preventive medicine.²

Comments On The Research

First, some brief observations about the papers at hand. The factors that prompt a visit to the doctor, the topics that physician and patient discuss, and the events that follow are all complex, multifactorial interactions—an intricate ballet of attitudes, cognition, and be-

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havior that defy simple cause-and-effect attributions. Weissman and colleagues concede this, but then they go on to suggest that DTC drug advertising appears to be a generally positive force for health. Yet some of the data they present suggest a different conclusion.

It is appealing to think that apart from any commercial benefit to its sponsors, DTCA may sensitize patients to diagnoses that have been undetected or undertreated by their physicians. In an ambitious study in which 3,000 subjects were interviewed, Weissman and colleagues found that 35 percent of respondents had visits with physicians in which a DTCA-inspired drug or condition was discussed. For these patients, the surveyors asked respondents whether the advertising had a strong or weak influence on that discussion. Paradoxically, those with “high DTCA influence” were not more likely to have a new health concern discussed or a new diagnosis made in comparison with patients who reported “low DTCA influence.” In fact, they were less likely. When new diagnoses were made, these were less likely to be confirmed by a clinician in patients with high DTCA influence than in those with low DTCA influence (Exhibit 2). It is also worrisome to learn (Exhibits 3 and 4) that in physicians’ follow-up actions as a result of these visits, patients with “high DTCA influence” were significantly less likely to report that they had lab tests ordered to evaluate their condition or had their doctor recommend lifestyle changes.

What about the capacity of DTCA to achieve its main purpose: increasing sales of the advertised product? High-DTCA-influenced patients were only slightly more likely than other patients were to end their visit with a prescription for the advertised drug (47 percent versus 41 percent). Despite the enormous size of the study, the level of significance of this modest difference was just $p = .06$. If this had been a clinical trial of the DTCA intervention, it would not have passed the

FDA’s standard for efficacy. Is this the best bang for the buck we can get for a nearly \$3 billion annual investment in health communication to Americans?

Dubois takes a different approach and widens his perspective to include all pharmaceutical promotion, to physicians as well as to patients. He describes the remarkably high level of variability in the use of surgical and diagnostic interventions in different U.S. geographical areas, and he notes that the variability of prescription drug use is more modest, at least in the managed care and pharmacy benefit management (PBM) settings that were studied. Such diminished variability, he suggests, is probably the result of a greater level of rationality underlying prescribing compared to these other clinical activities, for which the evidence base concerning effectiveness and appropriate use is much more slender.

This is probably true, but it is a stretch to give pharmaceutical promotion so much credit for this. The knowledge base that guides the use of prescription drugs is as strong as it is because of the tough evidentiary hurdles that the FDA requires before a drug can be marketed—and the resulting data-driven recommendations that this makes possible. When these recommendations are made by the manufacturer in the form of promotion to physicians or patients, the content of this information is likewise regulated by the FDA. Dubois points out that in one care setting, the appropriateness of statin use did not deteriorate during a period of sharp growth in use, while considerable promotion was going on. Yet attributing this to the promotion is simply an ecological fallacy; as the author notes, this period also saw the development and dissemination of numerous guideline recommendations, as well as the publication of the results of important randomized trials.

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Considering The Benefits Of Drug Promotion

Although these papers don't make a strong case for the benefits of pharmaceutical promotion, particularly DTCA, it is still appropriate to consider the possible good that could come from this kind of communication. The U.S. health care system underperforms badly in its management of high blood cholesterol, hypertension, and diabetes, among other conditions. Other diagnoses suffer the dual liability of underdetection and undertreatment, including depression, incontinence, and erectile dysfunction. Advocates of pharmaceutical promotion raise an interesting point when they suggest that advertisements to doctors or patients might increase awareness of these conditions and their management on both sides of the prescription pad, a process that could in principle bring about an eventual public health benefit.

There quite likely are patients who didn't know that they were clinically depressed until they saw an ad for Zoloft or who weren't aware that there was a useful treatment for impotence until Bob Dole told them so in a Viagra commercial. And it's also probably true that numerous patients have found the courage to tell their doctor that they constantly wet themselves, and wanted treatment for it, only after they were exposed to DTCA promotion of Detrol. But we should also ask the following question: From a public health point of view, is this the best way to spend nearly \$3 billion on health communications to the American public? Even if more patients with high cholesterol or depression seek treatment because of DTCAs for Lipitor or Prozac, how many more could be treated if they were instead prescribed the equally effective generic drugs in the same classes, lovastatin or fluoxetine? And now with the publication of the Anti-hypertensive and Lipid-Lowering Treatment to Prevent Heart Attack Trial (ALLHAT), which showed that the older thiazide drugs are both better and cheaper than many newer drugs in the management of hypertension, what was the net public health benefit of all those costly ads for calcium channel blockers

and the promotion-driven use of these expensive products they generated?³

To fully assess the impact of DTC health communications on morbidity and mortality, we would also need to ask what the incremental benefit might be of spending some of those billions instead on messages about diet; exercise; or alcohol, drug, and tobacco abuse—or the importance of compliance with a prescribed regimen, regardless of which company manufactures the drug in question.

Granted, DTCA can make patients more informed consumers in some situations, and patient education and empowerment are in general good things. Yet some of the most lavish spending on DTCA has been for products like Nexium and Clarinex, which are virtually identical to other existing therapies. Their “incremental benefits” are high margins for their manufacturers, not improved outcomes for patients. And we should also consider the other effect DTCA can have on doctor-patient communication: the prospect that a clinical decision about a prescription becomes a kind of zero-sum negotiation between antagonistic parties. The patient brandishes the latest glossy ad from *Parade* magazine and demands his or her preferred product, while the doctor defends the original prescription—or just caves in altogether. After all, a main reason that drug manufacturers sought the right to advertise drugs directly to the public was their concern that managed care organizations were using physicians to deny specific products to patients, primarily because of cost. Indeed, many health plans and doctors did profit financially from avoiding the use of costly drug products, and not always for solid clinical reasons. We cannot and should not return to the old days when the prescription was a sacrosanct gift bestowed by an omnipotent physician upon a grateful, unquestioning patient. But we are not benefited, either, if the transaction becomes an adversarial encounter, with doctor and patient circling each other warily in the consultation room, each trying to “win” over the other.

Advertising That Is Not Product-Specific

If we really want to increase the public's awareness of depression or incontinence or heart disease prevention, we can do so directly; those same talented people at the advertising agencies are quite willing to put together promotions that are not product-specific if someone pays them to do so. If statins and anti-hypertensive drugs are underused (as they are), systems approaches to addressing noncompliance by patients and physicians could work at least as well as, if not better than, ads for specific products.

Some will object that this is an implausible argument—that drug companies are willing to advertise their own products but that the nation itself lacks the resources to pay for such public-interest health communication. This is not true. Patients, employers, insurance companies, and numerous government health care plans are already footing the bill for the \$3 billion that will be spent this year on DTCA, in the form of the higher drug prices needed to cover the costs of such expensive advertising, as well as the often costlier-than-necessary drug choices they engender.

Educating physicians and consumers about medications can be done under pro bono auspices, whether by state or federal governments, by professional societies (such as the American Heart Association or the American Cancer Society), or by other private-sector groups, such as those that have done such an effective job with antismoking advertisements. Our own work, and that of many other groups, has shown that this can be done both practically and cost-effectively, with resulting improvements in the appropriate use of medications.⁴

Activities of this kind are now going forward, although on a scale dwarfed by DTC promotion of specific drugs. We can continue to work to increase non-product-specific advertising, or we can settle for the increasing domination of health-related communication

by companies with products to sell. The United States has made its choice, and it is unlikely that the genie will be put back in the bottle. But we should not delude ourselves by denying that in the end, the bill is being paid by the public. It is not just the bill for the airtime, the magazine pages, and the costly advertising firms that put the whole enticing package together. It is the cost to the patients who think that they need a higher-price patented product when nearly identical generics are available; and the cost of wasted physician time spent convincing a patient that her heartburn will respond as well to a generic H2 blocker or proton pump inhibitor as it would to the latest highly advertised “purple pill.” It is also the emotional cost to the cancer patient who learns that his fatigue and weakness are due to the malignancy itself and will not disappear with a dose of Procrit, as the television commercials imply.

Defensible free-speech arguments and less defensible lobbying activities will probably keep DTCA growing in the United States for the foreseeable future, even though most other nations seem able to run quite effective medical care systems without it. Although as a nation we manage to cover the cost for the billions of dollars consumed by DTCA and for its consequences, and the many more billions consumed by pharmaceutical promotion directed at physicians, we lack the will to mount concurrent noncommercial programs on the same topics. Given that aggressive drug promotion is probably not going to go away, it could at least be shadowed by other pro bono messages that could be more even-handed, evidence-based, and cost-effective in terms of their health benefits. But the perception is that the health care system cannot afford to do so. After all, it cannot even meet its own rising costs for the current fiscal year—increases that are, ironically, caused in part by rapidly rising spending for heavily advertised drugs.

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OF COURSE COMPANIES must make potential consumers aware of their products. What is at issue here is not the fact of pharmaceutical promotion, but the way in which it has hypertrophied to become an overwhelmingly important influence on the drug choices made by doctors and patients. Yet its importance is greatest when it is seen as a symptom of a much larger issue: the redefinition of the U.S. medical care system from an enterprise focused on the health of people to one that is just another marketplace, like those for fast-food products, automobiles, or pop music.

The name of the game is buying as big a splash as possible in the media, whether public or professional, catching the eye of the consumer, and winning market share. In this model there is little room for health-oriented communications that do not advance a particular sales agenda. The proliferation of medical advertising in all of its forms is a symptom of the nation's all-against-all vision of medicine as just another commodity. We seem to have abandoned traditional notions of pro bono communications to improve the public's health and instead rely more and more on commercial promotion of all kinds to guide clinical decisions. From a societal perspective, there is little evidence that this is a cost-effective or even an effective way to advance the health of patients.

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Jerry Avorn has no conflicts of interest in relation to the material published in this paper.

NOTES

1. J.E. Henney, "Challenges in Regulating Direct-to-Consumer Advertising," *Journal of the American Medical Association* 284, no. 17 (2000): 2242.
2. M.B. Rosenthal et al., "Promotion of Prescription Drugs to Consumers," *New England Journal of Medicine* 346, no. 7 (2002): 498-505.
3. The ALLHAT Collaborative Research Group, "Major Outcomes in High-Risk Hypertensive Patients Randomized to Angiotensin-Converting Enzyme Inhibitor or Calcium Channel Blocker vs. Diuretic," *Journal of the American Medical Association* 288, no. 23 (2002): 2981-2997; and L.J. Appel, "The Verdict from ALLHAT—Thiazide Diuretics Are the Preferred Initial Ther-

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4. J. Avorn and S.B. Soumerai, "Improving Drug-Therapy Decisions through Educational Outreach: A Randomized Controlled Trial of Academically Based 'Detailing,'" *New England Journal of Medicine* 308, no. 24 (1983): 1457-1463; and J. Avorn et al., "A Randomized Trial of a Program to Reduce the Use of Psychoactive Drugs in Nursing Homes," *New England Journal of Medicine* 327, no. 3 (1992): 168-173.