

Drug Money in Medical Education: A Global Bioethics Concern

TIP EĞİTİMİNDE İLAÇ PARASI: GLOBAL BİR BİYOETİK KAYGI

Gregory Luke LARKIN^a

^aEmergency Medicine & Public Health
Director of Academic Development, Medical Director, Violence Intervention and Prevention Center
Parkland Memorial Hospital, The University of Texas Southwestern Medical Center at Dallas, USA

Abstract

Beyond the opium fields of Afghanistan or the coca plants of the Columbian highlands, there is a more subtle form of drug trafficking that emanates from corporate boardrooms and finds its way to hospitals, clinics, and university campuses around the globe. This well-financed cartel is not doing anything illegal, but it is grossly affecting the way healthcare is financed and how medical students and even established physicians are educated. Industry influences the medical marketplace through a variety of strategies, but the most alarming is the direct targeting of the hearts and minds of young physicians.

Key Words: Medical ethics, drug addiction

Türkiye Klinikleri J Med Ethics 2005, 13:149-154

Özet

İlaç ticaretinin, Afganistan'ın afyon tarlalarının ya da Kolombiya dağlık bölgelerinin koko bitkilerinin ötesinde, anonim şirketlerden çıkan ve dünyanın dört bir yanında hastaneler, klinikler ve üniversite kampüsleri ile yolunu bulan oldukça güç farkedilen bir şekli vardır. Bu iyi finanse edilen kartel yasa dışı herhangi bir şey yapmaz, ancak sağlık bakımının finansman yönünü ve tıp öğrencilerinin ve hatta tayin edilmiş hekimlerin nasıl eğitileceğini fena halde etkiler. Endüstri, farklı stratejiler vasıtasıyla tıbbi pazarı etkiler, ancak en tehlikelisi, doğrudan genç hekimlerin kalplerini ve akıllarını hedef almasıdır.

Anahtar Kelimeler: Tıp etiği, ilaç alışkanlığı

While drug trafficking is a serious global concern, the real purpose of the paper is to discuss a drug pushers of another kind: drug companies. Pharmaceutical firms are pushing their products, pens, and pizza on young physicians in the name of medical education... All to get more citizens hooked on more medications. Thus, it is like a Trojan Horse... Greeks bearing gifts... lots of strings attached... All of this medical marketing is merely to sell drugs in ways that are expensive to the both the medical profession in terms of our integrity and to the society as a whole... due to higher costs and the false conviction that they need more and more pills to solve their problems. Good drugs will sell themselves. Big advertising and marketing campaigns are needlessly inflating medication costs and

undercutting the professionalism and objectivity of our noble profession.

Scope of the problem: Its all about the money...

In 1960, healthcare accounted for slightly more than 5% of all US economic output; by 2002, that amount had nearly tripled.¹ Actual spending rose from \$108 billion in 1960 to \$1.6 trillion in 2002, a 15-fold increase.² Over the last two decades, proportion of total health care expenditures spent on prescription drugs has doubled, rising from 5% to 10% from 1982 to 2002.³ As the fastest growing component of the world's most expensive healthcare budget, prescription drugs costs increased 15% from 2001 to 2002, a \$22 billion increase.⁴

Global expenditures on prescription drugs grew 7% in 2004 to over \$550 billion.⁵ In the United States, for example, per capita prescription drug costs nearly tripled over the past decade to approximately US\$500 per person or nearly \$200 billion a year making pharmaceuticals the most profitable industry in the US.^{6, 5, 7-10} France, Japan, Italy, Germany, Canada, and the UK spend 1.6, 1.5, 1.4, 1.3, 1.1 and 1.1 percent of their respective 1.023 to 2.362 trillion dollar GDPs on drugs.¹¹

Geliş Tarihi/Received: 01.12.2005 **Kabul Tarihi/Accepted:** 22.12.2005

Yazışma Adresi/Correspondence: Gregory Luke LARKIN
The University of Texas Southwestern Medical Center at
Dallas
5323 Harry Hines Blvd Dallas, TX 75390-8579
gregory.larkin@utsouthwestern.edu

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Distribution of resources and justice

Pharmaceutical expenditures are not equally distributed across geopolitical boundaries, and gifts are often more of a problem in free market societies where physicians have maximal autonomy in deciding what to prescribe to whom. Such professional choice and educational gifts are stifled in societies where government support for the newest drugs is simply unavailable. Subsidy shortfalls may be entirely fair, in the case of marginally beneficial products; such rationing may also reflect a type of distributive injustice when we consider, for example, the number of patients with breast cancer who are denied the most effective therapy in America, Holland, and Britain: 1%, 22%, and 75%, respectively. Price controls limit the trafficking of pharma gifts, but they also limit the flow of new and potentially useful drugs to patients.

Free markets, such as the US, both permit and encourage the development of new drugs by forcing government, insurers, and consumers to pay handsomely for them.¹ According to the Pharmaceutical Research and Manufacturers of America (PhRMA), the US produced almost half of the new drugs introduced around the world between 1975 and 1994. Restricting free markets has ancillary costs also, as demonstrated when New Hampshire restricted the number of prescriptions reimbursed by Medicaid; the consequent 35% decline in drug use in the program led to an 80% increase in admissions to nursing homes until the restrictions were lifted.¹²

However, such free marketing of drugs also has costs. US consumers pay nearly twice as much for the same drugs, and shoulder the largest price burden for today's pharmaceuticals.¹³

About 80% of the increase in pharmaceutical spending over the last decade is actually due to higher drug use per capita, not price inflation.¹⁴ This increase in market penetration owes much to the success of pharmaceutical companies to get physicians to write prescriptions for their "me-too" products. The top selling drugs in the world are cholesterol and lipid lowering agents with sales of over \$30 billion per year.⁵ Still, there is hardly a treatment for malaria or kwashiorkor. Whether companies can be expected to be fair, or whether the Trojan horse of corporate gifts truly yields more useful free market drugs are important ethical and policy considerations. In lieu of investment in more innovative agents, the pharmaceutical industry has spent considerable resources on an aggressive marketing machine that plies physicians with gifts of various kinds, including meals, travel, research grants, books, honoraria, and other inducements, co-opting the good name of both physicians and the medical profession at large.¹⁵⁻¹⁷

Gifts

Magnitude of the gift problem

While few physicians truly sense that drug representatives are "Greeks bearing gifts," it is clear that industry sees value in such physician-targeted investment.¹⁸ For the decade 1990-2000, the ten largest drug companies spent about 35% of revenues on marketing and related activity; much more than manufacturing or research or new drug development.⁹ This number is corroborated by the fact that in the year 2000, the Pharmaceutical Research and Manufacturers of America, (PhRMA) reported that 35% of drug industry employees were in "marketing."¹⁹ Indeed, the sales force has nearly doubled in the last decade, increasing from 35,000 to over 88,000 from 1994-2004.²⁰ There is one drug rep for every 5-10 physicians in the US, approximating 60 million physician contacts annually, or a net of about \$8,000-13,000 spent on each physician per year.²¹

Types of Gifts

Gifts span an entire spectrum, from trinkets, to golf tees, to books, to sporting event tickets, to stock options, but all are part of the wooing of doctors to help companies sell products.²² Some gifts are subtle, like pens, but others are more overt, like Novartis' building a research tower on the MIT campus.⁶ Some not-so-subtle examples of drug company largesse will be discussed below.

P³: Pizza-Pie Propaganda

Breaking bread has always been a basic part of human social interaction since the dawn of mankind. Endorphins are released, serotonin is elaborated centrally, and brain neurochemistry is altered to the positive in the wake of gastronomical pleasure. Indeed, a general feeling of well being is accompanied with such satiety. The pairing of fine food and drink with romantic love is a time-honored tradition not lost on industry. They want us to love them. Studies have shown that industry information given during dinner meetings and lunches is of dubious quality...not to mention how pushing the next Lipitor during a lipid laden meal might be in poor taste.²³

The "gifts" of education are themselves often fraught with misinformation. Under the veil of "CME" sales reps push "literature" onto housestaff that is often noncompliant with FDA regulations; in one study 39% of the statements in handouts gave no scientific support for their claims.²⁴ Another study showed that 11% of all drug representative information was inaccurate, and no statements made about competitor's agents were favorable, though all were accurate. Over a third (37%) of attendees at sponsored functions at a university teaching hospital admitted that the representatives information would influence their own prescribing habits.²⁵ It is also unfortunate that drug company dinners are

focused primarily on inessential, “me too” drugs such as the next Viagra, blue pills adorning pens and post-it notes, while shortages of relevant and important drugs, like Compazine and Solu-Medrol go unnoticed and unchecked. Short on science and long on subliminal salesmanship, pseudo CME serves industry first and last. Physicians are all too human having a need for inexpensive CME and a parallel need to eat, making them highly susceptible to the attractive and attentive detail men and women who serve them Dom Perignon during their night off call.

Speakers Bureaus & Consulting Arrangements

Getting thought leaders from academic medicine, such as pain researchers to speak on a new analgesic, is just one way industry marketing masquerades as medical education. Speakers will be flown all over the country and paid upwards of \$1000-\$3000 per “CME” lecture they deliver. While the promotion may be occult, frequently such speaking will involve the companies product directly. Instead of a dingy hospital auditorium, many such lectures will be in fine restaurants over sumptuous dinners.

Some physician experts are hired speakers, some are hired consultants, and some are both. For the consultant, industry has also seen fit to fly physicians to the Waldorf Astoria in NYC or other more exotic locations under the guise of information sharing arrangements in order to get their “expert” physician opinion on a new drug or device. These doctors are also often paid honoraria for their time that also may sow the seeds of bias for the future.²⁶ How much are such arrangements truly worth? How much is genuine work and how much is outright bribery?

“Free Samples”

According to Marcia Angell, former editor of the *New England Journal of Medicine*, drug companies give physicians over \$11 billion in free samples every year, costing more than all the direct to consumer advertising, journal ads, and physician sales promotions combined.⁶ The true costs of such samples are likely added onto the prescription costs of the drug that the patient must ultimately pay for once the free samples run out. Free samples are never for penicillin; they are always for newer and more expensive drugs. Free samples are especially common in residency practices and may teach young doctors bad habits of relying on such samples.²⁷ Free samples may also be misused by physicians who treat themselves and their families, thus denying needy patients any true benefit.²⁸

Research Incentives and Grants

Drug and device makers do not have direct access to patients for the purpose of testing new products; to do this, they rely on physician recruitment. To effect such recruitment, companies may either fund a Phase IV study of dubious scientific merit or pay bounties and finders fees for

doctors who identify candidate subjects among their patients. These bonuses averaged \$7000 per patient in 2001, and in some studies, they are well over \$12,000 per patient.²⁹ These relationships can seem mutually beneficial, however, industry will generally dictate the terms of the study, conduct their own analysis, and will only rarely allow physicians to analyze and publish their results independently.

As for profit research blossoms, the suppression of negative results is just one anticipated side effect.^{30,31}

Research physicians are often pawns in drug company chess games. Like a ventriloquist’s mannequin, however, doctors will move their lips or not, when rewarded to do so. For example, when American Home Products (now Wyeth) stopped making isoproterenol for business reasons, the resuscitation research community was noticeably silent. Authors can be bought also, and the gift of “authorship” may be conferred when a company writes an entire paper and seeks to put opinion leaders, drunk on the wine of fame, at the top of the paper in a peer-reviewed journal. Industry ghostwriting, using persons, universities, and institutions that will carry weight in a given field, co-opts the good name of medicine and academia in an immoral way.

This selling of authorship also has long term benefits to industry; a study in *JAMA* showed that authors of corporate-sponsored trials were five times more likely to recommend the company product as non-industry funded authors.³² Academics and university medical centers have become willing partners with industry, in a for-profit research enterprise spanning campuses across the globe.^{33,34}

Ethical Consequences

Physicians & the Trojan Horse

Studies have shown that physicians are naïve on the well-substantiated and subliminal influence of gifts, and most are much more concerned about such gifts influencing their colleagues than how such subliminal marketing might actually influence themselves. Only 2% of residents in one study questioned that their own virtue might be impugned by corporate plying while upwards of 30% were concerned that gifts might unduly influence other residents.³⁵ Many well-intentioned physicians do not detect the subtle seduction and flattery that comes with such attention. Among house-staff, research has repeatedly shown that physicians exposed to programs that preferentially highlight a corporate sponsor drug are significantly more likely to change prescribing behavior than physicians who are not exposed to such corporate contact.^{36,37} One study showed attendees of drug presentations were 7.8 times more likely to incorrectly choose the sponsor’s product when it was only a second line agent and attendees were generally unable to list the proper cheaper drug for the second indication.³⁸ A separate analysis of those who requested adding drugs to hospital formularies

showed that those physicians were 13 times more likely than non-requesters to have met with a drug company representative and 19 times as likely to have accepted money from the same company responsible for the requested formulary addition.³⁹

It is natural in most cultures to feel indebted to those who keep giving us gifts. Voluntary industry guidelines established in 2002 limit the value of gifts to less than \$100 and require that gifts be pertinent to patient care. However, as long as they can be construed as educational, they can still be quite extravagant, and there is no limit as to the number and frequency of such gifts.

Another important ethical concern for physicians to consider is that their patients routinely view gifts quite negatively and find them less appropriate and more influential than do providers.^{40,41} Hence, patient concern with corporate interaction creates a corollary obligation for providers to be concerned and careful in their behavior with industry. The white-coated respect physicians receive from patients creates a reciprocal obligation to be accountable to these same patients. It is impossible to serve two masters, and physicians trying to minister to both patients and industry find themselves in a morally impossible situation.

House of Medicine

It is the job of medical schools to educate doctors and doctors in training; to abdicate that responsibility to others less qualified and who are educating with strings attached is wrong. The 2002 PhRMA Code on Interactions with Healthcare Professionals states at the outset, "relationships with healthcare professionals...should be focused on informing healthcare professionals about products, providing scientific and educational information, and supporting medical research and education." Vermont's new law demanding broad disclosure may have been enacted by jealous attorneys, but it proves the point that the word is out now, and physicians are under a microscope more than ever. Keeping our nose clean is vital to professionalism. The influence of money will always affect people, whether they be students of medicine or otherwise...the answer is in how medicine (in the US and abroad) portrays itself to the public. The public are the ones who consume the intellectual property that the physicians own. The marketing of this intellectual property is a largely unfenced field with few rules save one Golden Rule: he who has the gold makes the rules. Industry has the gold.

Premedical selection processes would be all the better if we could de-select for the vice of greed. Unfortunately, some of the brightest students are also those that want to make a better life for themselves and their loved ones, and pecuniary self interest may eclipse altruism. What physicians want and what they need are seldom the same, and so the noble image of the modern physician is quickly being desecrated by industry blemishes. The reputation of any

one physician impacts the entire profession and vice versa. We need processes in place to limit gifts and rid our ranks of truly greedy, gold-digging doctors.

MACRO/Global Issues:

Allocation of Resources, Justice, and Fairness

Overmarketed & Overmedicated: the broad path to global polypharmacy

Pharmaceutical gift giving has been associated with the wide availability of newer drugs, it is also associated with a culture of polypharmacy. For example, pharmaceutical usage in the US jumped 32 percent between 1992 and 1998 to an average of 9.6 prescriptions per accounting for 1.2% of the 11.735 trillion dollar GDP.⁴² Indoctrinated by industry's medication marketing, practitioners have learned to over-emphasize drug therapy treatments for patients. Pill-pushers more than careful clinicians, many of today's physicians are, in tandem with industry, teaching patients to want and expect drugs for all of life's problems. Marketing inspired polypharmacy can lead to more drug dependence, side effects, drug on drug interactions, and allergic reactions that together have lead medications to be one of the major causes of morbidity and mortality in developed countries. Indeed, the paradoxical dependency on medication can be a more serious problem than the disease that the medication was originally intended to cure.

Limited Access to Medications

We live on an overmedicated planet; and yet, those with chronic illnesses cannot often obtain needed medication, even in developed countries.⁴³ While there are surpluses of "me-too" drugs for secondary conditions, many useful therapies with poor market potential may go to the wayside. The basic medication needs of patients are being ignored throughout underserved communities across the globe, as reflected by the overcrowding of emergency departments (EDs) in many countries.⁴⁴ One study in an underserved public hospital emergency department in the US revealed that 29% of the patients with chronic diseases e.g. CHF, DM, HTN, SZ presented to the ED because they ran out of medications. These patients were found to be poor (income under \$5000 per year), younger than 50 years old, and lacked the knowledge about refill or pharmacy numbers on the medication bottle.⁴³ In the global community, government sponsored healthcare systems simply limit the newest and most effective medications to their citizens. Due to monetary concerns, they just don't offer them. Instead, they supply older, cheaper medications that may be substandard therapy.

In the global communities, is limiting the access to the latest and greatest medications "OK" in the name of national economic survival? Someone must pass judgment about the proper balance to be struck between competing individual and national interests.

Stealing from the Rich and Giving to the Poor: Robin Hood Companies

For one person to steal a patent from another is normatively morally wrong; it is against the law in most countries. However, is this same sort of law or patent protection in operation if a poor country steals a drug patent from a rich company?

In English literature, Robin Hood was a fictional character from the Medieval England who lived in Sherwood Forest near Nottingham who would routinely steal from the rich in order to help the poor. While this behavior had widespread utilitarian appeal, one must still ponder the Kantian question at the more corporate level: Is it ethical? Can one be at once both hero and villain, and if so, does one activity justify the other? Does the principle of double-effect, which tells us some activities may be justified on intended consequences rather than actual results, have an important role here?

As globalization has led to outsourcing the manufacture of pharmaceuticals to distant corners of the earth, parallel processes and Robin Hood-like companies have sprung up that clone or copy expensive drugs from the West and manufacture them at a substantial discount in developing nations. Economic reasons alone would support such a practice, and even a Rawlsian view of justice would allow that such unfairness might be justified since it benefits the least advantaged. Even in the US, states such as Vermont and Maine have considered adopting new legislation that would allow reimportation of drugs from countries like Africa, Brazil, and India. These countries either manufacture patented drugs illegally or recycle discounted drugs they receive from US manufacturers that are in turn sold back to the US and other markets at a lower cost to the consumer. The benefit to the individual patient is clear, a less expensive drug in the short term. However, the arguments against such a practice are numerous. The diminished FDA safety oversight, that has led to increased morbidity and mortality in the past, as well as a paradoxical increase in the cost of those same drugs to those underserved countries.⁴⁵

Solutions

The academic establishment must develop an educational and research infrastructure that is largely immune from outside influence. Companies who make drugs must be incentivized to develop useful drugs that can stand on their own merit, and limit their marketing activities through disincentives. In countries that lack access to useful medications for their citizens, a new strategy that will engender thoughtful discussion from government, opinion leaders, and the public at large must take place. This, in turn, will allow practitioners of the medical arts, a chance to practice the best medicine possible without undue concern for drug costs and coercion. Existing cultural pressures will essentially be removed from the equation or transformed into a

statement of values that voters can revisit during elections inside democratic states. This Utopian paradigm may allow new perspectives to be cultivated including good clinical practice and more parsimonious prescription writing habits.

The global pharmaceutical industry may also benefit by the creation of an International Commission on Research and Development that will allow them to focus their efforts on manufacture and development of truly useful drugs, and far less on marketing. True globalization of the industry should ensure discounts for societies where the drugs are manufactured so they do not just benefit the world's rich. The private sector, academe, and governments working in cooperation can develop standards that will both ensure profitability as well as the production of evidence-based and essential pharmaceuticals for those in most need. The global pharmaceutical R & D approval processes could be monitored by a single over-riding international commission, reducing the need for approval within each and every country, saving billions. This commission will allow regional or even continental governing groups to interact with their regional counterparts to assure free trade of ethical drugs, and transparently monitor the side effects and adverse reactions of drugs on the market.

Conclusions

Physicians and the public are often blissfully blind to being swayed by marketing, and gifts from the pharmaceutical industry continue to flourish. Gifts are an unnecessary distraction from parallel goals of medical education and the development of useful medications. These twin goals are vital and legitimate social goods, but the two activities must not be confused. As long as men are influenced by drug money, the conflict between need and greed will prevail. The difficult task of maintaining a healthy separation between health and wealth will require a new relationship between the house of medicine and the big drug houses. A centralized UN-based or non-governmental body may be required to regulate industry in a way that saves society and industry the multivalent costs of pharmaceutical marketing. Physicians must dig into their own pockets and society must help to assure that medical education remains a free and unfettered enterprise, devoid of industry influence.^{46,47} Too many gifts from too many companies for too many years should have taught the house of medicine by now one simple fact: there is no such thing as a free lunch.

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