Industry Influence on the Practice of Medicine

Rx
Samples
Gifts
Meals
Speaking Fees
Collaborators

Milken Institute School of Public Health

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Course Faculty

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Conflicts of Interest Disclosure

• Adriane Fugh-Berman, MD is a paid expert witness at the request of plaintiffs in litigation regarding pharmaceutical marketing practices.

• Kofi Onumah, PharmD, RPh has no conflicts of interest.

• Tony Scialli, MD is the sole member of Scialli Consulting, a firm that provides consulting services on reproductive toxicology. He also is a non-CE consultant for GlaxoSmithKline.

• Susan Wood, PhD has no conflicts of interest.
Important Information

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- The post-test will only unlock after viewing the entire video.
- The video can be paused and resumed later.
Course Objectives

1. Identify several techniques used in pharmaceutical marketing.
2. Recognize the obligation created by accepting small gifts or meals.
3. Discuss the purpose of samples from industry’s point of view.
4. Discuss two persuasive techniques documented in social psychology.
5. Implement two actions to minimize the effect of industry promotion on prescribing practices.
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Will Keith Kellogg  
(1860 – 1951)  

A master promoter:  
• Branding  
• Free samples  
• National advertising  
• Prelaunch marketing
Edward Bernays: the father of Public Relations (PR)

Edward Bernays was hired by the American Tobacco Company to encourage smoking among women.
“Torches of Freedom”

Bernays positioned cigarettes as a symbol of freedom.
The best marketing doesn’t look like marketing

Edward Bernays also was hired by a piano company...
PR techniques are also used to sell drugs

- Detailing (drug rep visits)
- Samples
- Meetings and events
- Continuing education
About 850,000 physicians in the U.S.

More than 3 million nurses (including more than 220,000 NPs)

>100,000 PAs

>280,000 Pharmacists

About 63,000 drug reps
Targets

• High-prescribing physicians, nurse practitioners, and physician assistants
• Pharmacists
• Formulary (P&T) committee participants
• Healthcare providers who influence other healthcare providers
• Faculty from health professional schools
• Anyone who controls market share
What drug reps know about you...

1. What you prescribe or dispense
2. Who influences you
3. Personal information
Assessing Clinicians

• Reps are trained to assess personalities, practice styles, and preferences.
• Reps are trained to observe objects in an office that can be used to establish a personal connection.
What HCPs prescribe
We called every physician office in America to get your reps in the right doors
nurse practitioners
physician assistants
state license DEA and UPIN domain
prescription decile data
birth date ZIP code
state license
primary specialty
phone number
credit card acceptance
patient volume hospital affiliations
From demographics to patient volume and prescribing habits we know physicians better than anyone. That’s because we’ve been profiling them for 25 years. We’ve built the largest, most accurate database of physicians, group practices and affiliations. Our information products deliver high impact solutions for healthcare marketing, sales and compliance.

To learn more about our capabilities, please visit www.skainfo.com or call 1-800-752-2390
She is more than what she prescribes.

Am you limiting your brand by having too narrow a view of your patients?

SDI has developed a series of market research studies that identify the many factors that influence prescribing behavior. SDI's unique methodology and in-depth understanding of healthcare professionals deliver solutions that increase patient referrals.

- Holistic approach to improving patient referral behaviors;
- Determining best practices for increasing and influencing drug-prescribing behaviors;
- Segmentation based on patient factors plus social, cultural, and economic characteristics.

To learn more, contact your SDI representative.
If only changing the dialogue were this easy.

But it’s not.
It takes a specialized approach to influence the patient-provider conversation.

We're helping patients and providers share the information that really matters. For more than 20 years, Micromass has been a specialist, using evidence-based behavior change strategies to create a 2-way dialogue, optimize treatment, and improve patient outcomes.

Patient-provider communication is a critical part of your brand’s success.

Learn how our dialogue programs may lead to better outcomes for your patients and your brand.

Email jude.kelly@micromass.com to get started.

Micromass

WeAreSpecialists.com
About 3/4 of pharmacies sell prescribing data. Insurers also sell patient records.

Steinbrook 2006
AMA Sells Your Information

The AMA sells information about physicians to...

- Pharmaceutical and medical device companies
- Consultants
- Market researchers
- Insurance companies
- Commercial organizations
- Medical publishers
- CME providers
- Investment firms

AMA 2015
AMA Sells Your Information

AMA Income in 2015:

- Database sales: $40.3 million
- Membership dues: $30.7 million
Detailing: Minimizing adverse effects

A study of 255 physicians in the US, Canada, and France examined 1,692 interactions with drug reps.

Physicians were rarely informed about serious adverse effects.

Mintzes 2013
Can you separate facts from promotion?

Studies show that physicians believe they can separate out objective information from promotion.

- Studies have found that physicians routinely fail to distinguish between correct and incorrect information provided by sales representatives.  
  
  Shaughnessy 1994, Molloy 2002

- Another study found that although physicians claim to rely more on scientific materials, their beliefs about two commonly used drugs correlated far more strongly with promotional than with scientific materials.  
  
  Avorn 1982
Not only physicians...

A systematic review of 15 studies found that nurses, advanced practice nurses, physician assistants, pharmacists, dieticians, and physical or occupational therapists all interacted with pharmaceutical companies.

Grundy 2013
Not only physicians...

- Clinicians received information and sponsored education from drug companies and acted as distributors for similar materials targeted at patients.
  - Clinicians generally felt they could separate promotion from accurate “information.”
  - Clinicians approved of free samples.

Grundy 2013
Physician Assistants and NPs

• In 2015, physician assistants and nurse practitioners wrote 15% of prescriptions. 
  *IMS Health 2016*

  • Per visit, NPs and PAs write just as many prescriptions as physicians. 
  *Cipher 2006*

• PAs, NPs, and other non-physician prescribers write about 1/3 of the 92 million prescriptions for opioids written by primary care clinicians. 
  *Fauber 2014*
Nurses

• An ethnographic survey of 56 nurses found that all reported interactions with industry in the previous year.
  • Nurses met with reps an average of 13 times a year.
  • Nurses thought that drug reps were a vital resource for drug information.
  • 71% of nurses reported offers of gifts.
  • 70% reported attending sponsored lunches, dinners, or events.
  • 61% reported offers of product samples.
  • 27% reported paid travel or payments for participation in market research, speakers bureaus, or consulting.

70% reported problems with reps including introduction of unapproved devices, lack of accountability for product failure, and threats to patient safety and privacy.

Grundy 2016
Pharmacists

• Industry provides information to pharmacists through
drug reps, information sent to pharmacies, training programs, drug information call centers, meetings, publications.

• Industry sponsors medication therapy management/disease management programs, particularly adherence and compliance programs.
Pharmacists

• Ethnographic survey of nine pharmacists
  • All interviewees had negative views of industry rationales for increasing drug costs.
  • Pharmacists expressed concern that drug reps failed to address complex disease states, adverse effects, and drug interactions on patient safety.
  • Pharmacists believed that industry interactions had little or no effect on their professional behaviors.

Saavedra 2017
Drug Rep Perspectives on Meals and Other Gifts

When a drug rep is having a meal with a HCP, “The physician is eating with a friend. You are eating with a client.” Shahram Ahari

“You are absolutely buying love.” James Reidy

The essence of pharmaceutical gifting is “bribes that aren’t considered bribes.” Michael Oldani

Fugh-Berman 2007
How well do you track spending on Healthcare Professionals?

$76  
Dr. Miller

$92  
Dr. Jones

$87  
Dr. Smith

$189  
Dr. Williams
Gift Payments to HCPs in DC

In 2015, health care providers in DC accepted $13.8 million in industry gifts and payments.

- Physicians: $13,067,818
- Advanced practice nurses: $317,118
- Registered nurses: $122,312
- Physician assistants: $68,696
- Pharmacists: $33,348

DC DOH 2017
Tired of waiting 6 Weeks to get Lunch Meetings with your Doctors?

How about a mid-afternoon meeting next week?

Send Ice Cream

It’s Easy: Take Ice Cream!!

- It’s fun; it’s different and puts everyone in a good mood.
- Complete, all-inclusive ice cream sundaes for 10, 20 or more.
- Everyone will remember the rep that brought them ice cream!
- Boxes can be shipped to your home or your account’s office.
- Spend more time presenting and selling—not shopping and picking up food.
- Modestly priced, High Impact and within Pharma code limits

We send complete ice cream sundaes packages. Each package comes with everything you need: ice cream, scooper, cups, (mugs and soda for floats) napkins, spoons, fun toppings and a personalized gift card.

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"The Reas Representative"
“I’m too smart to be bought by a slice of pizza”

Studies consistently show that promotion increases prescribing


BUT

Studies consistently show that physicians do not believe that promotion affects prescribing

Sigworth 2001, McKinney 1990
Marketing Works!

- Physicians, nurse practitioners, and physician assistants who receive food and other gifts prescribe more expensive drugs and more branded drugs.
  

- Physicians who accepted even a single meal had higher rates of prescribing Crestor (rosuvastatin), Bystolic (nebivolol), Benicar (olmesartan) and Pristiq (desvenlafaxine), compared to other drugs in the same classes.

  DeJong 2016
Promotion increases prescribing

- A systematic review found that most (15/19) studies found that pharmaceutical interactions promoting a medication
  - Inappropriately increased prescribing rates
  - Lowered prescribing quality, and/or increased prescribing costs
- A meta-analysis of six of these studies found a statistically significant association between exposure and physician prescribing behaviors (OR = 2.52).

Brax 2017
Promotion increases prescribing

A study with a dataset of 189 million psychotropic prescriptions written between 2005 and 2009 found that:

- Uptake of expensive new drugs was significantly lower in states with marketing regulations than in states with no restrictions on pharmaceutical marketing.
- Gift bans reduced market shares of new drugs 39% to 83%, compared to other states.
- Policies banning or restricting gifts were associated with the largest reductions in uptake.

King 2017
Samples:

• Samples are the most effective marketing tool.
• The real purpose of samples is to:

  - Gain access to physicians
  - Habituate physicians to prescribing targeted drugs
  - Serve as unacknowledged gifts to physicians and staff
  - Increase goodwill by enabling doctors to give gifts to patients
Samples cost patients money!

- Prescribers believe they give out drug samples to patients as a form of financial assistance.
- In reality, poor and uninsured Americans are less likely than wealthy or insured Americans to receive samples. 
  
  *Cutrona 2008*

- A study using the Medical Expenditure Panel Survey ("MEPS") found that patients who got samples had higher medication expenditures than patients who didn’t get samples.
  
  *Alexander 2008*
Samples change prescribing behavior

The availability of samples leads physicians to dispense and prescribe drugs that differ from their preferred drug choice.

Chew 2000
Sample Use

- Sample use has decreased recently.
- Prevalence of sample use among Americans is decreasing.

2003: 12%
2009: 9.3%
2013: 6.2%

Cutrona 2008, Brown 2017
Generics Increase Adherence

• In a 2005 survey, 25% of insured patients and 51% of uninsured patients said that they or a family member had not filled a prescription, or had cut pills or skipped medical treatment because of cost. *Kaiser Family Foundation 2007*

• In 3-tiered plans, patients who received generics filled 12.6% more prescriptions in the next year than those who received non-preferred branded drugs. *Shrank 2006*
Don’t Accept Samples!

The basic economic premise here is you keep investing until your marginal return is zero. You keep sampling until a point of saturation, where additional samples are not going to make a physician write any more prescriptions.

Burns 2005
Try this

• Give away all your free samples as full courses of therapy.
• Watch your sample supply dry up...
What Drug Reps Make

• In 2016, the average drug rep’s salary was $122,107 (median $115,000).
  • Average base salary $90,862 (median $85,000)
• The average specialty rep’s salary was $138,150 (median $125,000).
  • Average base salary $97,784 (median $95,000)

2016 Pharmaceutical Sales Salary Report
The PDRP restricts allowing sales reps from accessing prescribing data.

You can fill out a form to opt out at the AMA website: ama-assn.org/go/prescribingdata
Physicians under the Influence: Social Psychology and Industry Marketing Strategies

Sunita Sah and Adriane Fugh-Berman

It is easier to resist at the beginning than at the end.

– Leonardo da Vinci

Physicians often believe that a conscious commitment to ethical behavior and professionalism will protect them from industry influence. Despite increasing concern over the extent of physician-industry relationships, physicians usually fail to recognize the nature and impact of subconscious and unintentional biases on therapeutic decision-making. Pharmaceutical and medical device companies, however, routinely demonstrate their knowledge of social psychology processes on behavior and apply these principles to their marketing. To illustrate how pharmaceutical marketing strategies use psychological techniques to promote targeted therapies, we draw on the relevant social psychology literature on conflicts of interest and on the six principles of influence articulated by the eminent social psychologist Robert Cialdini. Hospitals, professional organizations, medical educators, and other stakeholders must also draw on social psychology to respond effectively to
Cialdini’s Principles of Influence

1. Reciprocation
2. Commitment and consistency
3. Social proof
4. Liking
5. Authority
6. Scarcity
Reciprocation

• Every culture has a tradition of reciprocation.
• Even small gifts can influence gift recipients.
  • A small gift strongly affected recipients’ decisions in favor of the gift-giver, even at the expense of a third party. *Malmendier 2011*
  • A single piece of candy can increase tips to food servers. *Friedman 2011*
  • A small gift of personalized address labels in a mailed solicitations doubled contributions to a charity. *Smolowe 1990*
  • Raffle tickets were much more likely to be bought by participants who received a soft drink than by those who did not receive a gift. *Regan 1971*
Commitment and Consistency

• Consistency is highly valued in our society and associated with rationality and stability. *Cialdini 2008*

• After committing to a decision or opinion, people justify that choice or opinion by remaining consistent with it. *Goldstein 2008*
  
  • After making a decision, people view that decision more positively, and other decisions more negatively. *Kenrick 2002*
  
  • Betters are much more confident that their horse will win after they have bet on it. *Knox 1968*
  
  • In medicine, a prescriber is likely to be more positive about a drug after rather than before prescribing it. *Fugh-Berman 2008*
Commitment and Consistency

• Written commitments work better than oral commitments. *Fugh-Berman 2008*
• Sales representatives know that having a customer write in the details of a contract reduces the chances that a customer will cancel the deal. *Kenrick 2002*
• A prescription is a written commitment.
Social proof

• Studies show that peer pressure—following the crowd—determines whether:
  • Bystanders help an emergency victim
  • People pay taxes
  • Juveniles decide to commit crimes
  • Homeowners recycle

  *Kenrick 2002*

• In medicine, trainees in an institution are affected by:
  • Policies
  • What they see their mentors do
Social Proof: The Hidden Curriculum

• Students’ attitudes tended to become more favorable towards industry as their training progressed from the preclinical to the clinical years.

• Graduates of programs that limited or prohibited interactions with industry representatives are just as likely as graduates of programs without such restrictions to see drug reps in their practices. McCormick 2001, Ferguson 1999

• 29–62% of preclinical students reported that promotional information provides useful information about new drugs, compared to 53–71% of clinical students. Austad 2011

• Observing mentors accepting hospitality and funds from industry may be more powerful than institutional policies or formal curricula...
Liking, or rapport, increases with familiarity. Drug reps are experts at befriending healthcare providers.
“But my drug rep is my friend”

“I frame everything as a gesture of friendship”

“A lot of doctors just write [prescriptions] for who they like.”

“I provide office lunches because visiting them is such a pleasant relief from all the other docs.”

“I give them free samples not because it’s my job, but because I like them so much.”

Shahram Ahari MD and Jordan Katz, former drug reps

Fugh-Berman 2007, Sismondo 2013
Drug reps usually do not continue relationships with physicians who are not prescribing or promoting a targeted drug.

Fugh-Berman 2007
Detecting Bias

• Both physicians and NPs believe their own prescribing behavior is unaffected by industry but believe their colleagues are influenced.  

• The bias blind spot: We are more likely to identify the existence of cognitive and motivational biases in others than in ourselves.  
  Pronin 2002, Pronin 2004
Denials and Rationalizations

Cognitive dissonance is discomfort that arises from a discrepancy between conflicting beliefs, or between beliefs and behaviors.

Denials:
1. Avoiding thinking about the conflict of interest
2. Rejecting the notion that industry relationships affect physician behavior
3. Universalizing responsibility for problems (“there’s always a conflict of interest...”)

Rationalizations:
1. Reasoning that meetings with drug reps were educational and benefited patients
2. Asserting techniques that would help maintain impartiality

Chimonas 2007
A study of 230 family medicine and 90 pediatrics residents asked the same questions, ordered differently.

- Doctors in the **implicit reminder group** were asked first about sacrifices and then asked about the acceptability of receiving industry-funded gifts.

- Doctors in the **explicit reminder group** were asked first about their sacrifices then asked to indicate their level of agreement with the statement: “Some physicians believe that the stagnant salaries and rising debt levels prevalent in the medical profession justifies accepting gifts and other forms of compensation and incentives from the pharmaceutical industry.” Finally, they were asked the questions about the acceptability of accepting industry-funded gifts.

- Doctors in the **control group** were asked first about gift acceptability, then about personal sacrifices and then whether such sacrifices justified accepting gifts.

*Sah 2010*
Rationalization of gift acceptance

The percent of physicians who reported willingness to accept gifts in each group was:

- 22% in the control group
- 48% in the group who had been implicitly reminded of the burdens of medical training
- 60% in the group who were given an explicit potential rationalization

Sah 2010
KOLs

- Nationally known, influential academic physicians are called “thought leaders,” “opinion leaders,” or “key opinion leaders”.
- KOLs are part of a “third party” strategy.
Authority & Scarcity: KOLs (Key Opinion Leaders)

- KOLs are not as objective as they seem.
- KOLs influence the prescribing behavior of their audience.  
  
  Goldfinger 1987
  
  - They also convince themselves; KOLs’ prescribing practices favor their sponsors’ drugs.  
  
  Goldfinger 1987, Chren 1994

- Publicly exhibited norms are gradually internalized. Kelman 1953
  
  - One’s private opinion often changes to correspond with one’s overt behavior. Festinger 1959
KOLs Market Diseases

• KOLs do not push specific drugs.
• KOLs’ messages usually indicate that a certain disease is underdiagnosed, undertreated, or more serious than commonly believed.
• KOLs are sponsored because what they are saying aligns with a product’s marketing messages, and are supported only as long as they do so.
• Physician speakers may be unaware of the marketing messages for which they are responsible.
Drug promotion starts long before approval

- Pre-launch marketing usually emphasizes the prevalence or severity of the disease state ("disease awareness")
Industry’s view of continuing education

“CME activities are most valuable in introducing products early in their life cycles or for promoting mature brands with new indications and new clinical data.”

Bottiglieri, Pharmaceutical Executive, 2001
Commercially-sponsored CME

• CME activities sponsored by a pharmaceutical company describe drugs more favorably. Bowman 1986, Korn 2013

• 34-48% of total CME funding derives from commercial support.
  • 98% of commercial support comes from pharmaceutical companies. ACCME 2012

• A targeted drug is prescribed more frequently after a sponsored activity. Orlowski 1992
Industry Funds Many CMEs

• The top 500 accredited CME providers accounted for 90% of physician interactions.
  • 72% of the popular providers received commercial support.
• The Accreditation Council on CME (ACCME) has loopholes that allow industry employees to control the content of a CME module when:
  • It is not related to the business lines or products of their employer
  • It is limited to basic science research or the processes/methodologies of research

Fugh-Berman 2016
Detecting Bias

• Physicians do not perceive a difference in commercial bias between industry-funded and non-industry-funded CME.

However, physicians are not trained to identify bias.

CME on Breakthrough Pain

- Participants evaluated a non-industry-funded article on opioid use (n=18) or an industry-funded article on breakthrough pain (n=20) and were asked to summarize the messages in the article.
  - Participants who read the non-industry-funded article noted that the effectiveness of opioids for chronic pain was unclear and there was a risk of abuse or addiction.
  - Participants who read the industry-funded article viewed opioids more positively.

*Infeld (submitted)*
"CME contributions are commercial decisions. Commercial does not equal unethical or lacking in value, but it does represent a focus on a particular business objective. The nature of the return may be subtle, nonbranded, or indirect."

"...expected return on investment is the bottom line for determining the distribution of CME cash"

Bioethics Forum 2010
Benefits of Avoiding Industry-Funded Continuing Education

Physicians who avoided industry-funded CME prescribed fewer branded drugs and more generic drugs.

Lieb 2014
Why does this matter?

There are more than 10,000 drugs in the US pharmaceutical market

More than half of promotional expenditures are concentrated on the top-selling 50 drugs

Ma 2003
Conclusions

Pharmaceutical company promotion utilizes sophisticated social psychology techniques to manipulate therapeutic choices.

Promotion distorts perceptions of benefits and harm.

Pharmaceutical companies should not be involved in educating HCPs.

Rational drug use is compromised.
What You Can Do

- Don’t see drug reps
- Don’t accept gifts or food from industry
- Forego samples/copay vouchers/ coupons
- Don’t attend industry-funded CME/ CPE or other events
- Don’t provide patients with industry-funded material
- Trust unbiased sources of therapeutics information
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| Rational Prescribing in Older Adults |
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