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The Inherently Flawed Relationship between Physicians and Pharmaceutical Companies' Gifts: TANSTAAFL*

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There Ain't No Such Thing as a Free Lunch – term popularized by Robert A. Heinlein in *The Moon Is a Harsh Mistress

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Abstract - Pharmaceutical companies frequently give practicing physicians and physicians-in-training an assortment of free "gifts," ranging from pens to stethoscopes to continuing medical education. In an ideal world, these gifts would not compromise, or even seem to compromise, physicians' decision-making. Unfortunately, as we live in a non-perfect world, this paper examines how physicians have been shown to perceive such gifts, the pharmaceutical companies' position regarding these gifts, what the theory of gift-giving and gift-receiving tells us about this behavior, and what the future may hold as healthcare becomes more transparent.

Keywords - Pharmaceutical marketing, Physician behavior, Gift giving, Gift receiving

Relevance to Marketing Educators, Researchers and Practitioners – All marketing professionals should be aware of the effectiveness of marketing via gift-giving. This phenomenon is especially important in the prescription pharmaceuticals arena, where it's effects have been ignored for decades.

Introduction

Over three decades ago, Lexchin (1993, p. 1401) came to what was then a surprising conclusion: "Physicians are affected by their interactions with the pharmaceutical industry." The relationship among society, physicians and pharmaceutical companies, then and now, is complex and interactive. Pharmaceutical companies develop, manufacture and distribute powerful prescription drugs that benefit patients. However, while the pharmaceutical industry's effort to encourage physicians to prescribe the right drug for the right patient at the right time in the right dose via the right route of administration can certainly be seen as contributing to the health of society (Blumenthal, 2004), the marketing of prescription pharmaceuticals by for-profit firms could conceivably lead to unfortunate consequences; e.g., higher drug costs (Caudill et al, 1996; Minnigan & Chisholm, 2006), and the over/under use or even misuse of drugs in ways that might adversely affect patients (Relman & Angell, 2002).

In a national survey, the 94% of physicians acknowledged some sort of relationship with the pharmaceutical industry, mostly involving receiving food in the workplace or receiving free drug samples (Campbell et al, 2007). Many physicians have a positive attitude toward their interactions with pharmaceutical companies (Korenstein, Keyhani & Ross 2010; Wazana, 2000), professing to believe that their interactions with pharmaceutical companies provide educational value for both themselves and their patients, because the interactions allow the doctors to become aware of new prescription drugs and because the free samples provided by the pharmaceutical companies can be provided to patients (Chren, 1999; Brett, Burr & Moloo, 2003). Many believe that they are entitled to such gifts, merely because of their profession (Kassirer, 2007; Minnigan & Chisholm, 2006; Sierles et al, 2005). However, several studies (Blake & Early, 1995; Fadlallah et al, 2016; Green et al, 2012; Jastifer & Roberts, 2009), have shown that patients have a less sanguine attitude toward pharmaceutical companies' gifts to physicians, especially those gifts of higher value and not directly related to patient care.

Studies of Physician Behavior

In recent years, the attitudes of physicians (often non-practitioners, such as residents and/or Program Directors or medical students) regarding pharmaceutical companies' gifts and interactions between pharmaceutical company representatives and doctors have been examined extensively (Gibbons et al, 1998; Lichstein, Turner & O'Brien, 1992; Poirier, Giannetti & Guidici, 1994; Steinman, Shlipak & McPhee, 2001). Many physician respondents are confident that any bias in the educational content or other offerings associated with pharmaceutical companies would not affect their own decision-making (Dana & Loewenstein, 2003; Hodges, 1995; Salmasi, Ming & Khan, 2016; Spithoff, 2014; Steinman, Shliplak & McPhee, 2001; Wall & Brown, 2007; Wazana, 2000). Their confidence is brought into question in two inter-related areas: lack of training regarding appropriate interaction with pharmaceutical salespeople and questions about how their peers might be influenced by gifts from pharmaceutical salespeople. With respect to lack of training, Grant & Iserson (2005) noted that only 10% of internal medicine physicians believed that they received sufficient training during medical school or residency regarding professional interaction with sales representatives. In addition, many physicians have doubts regarding how their peers might be influenced by gifts from pharmaceutical companies (Halperin, Hutchison & Barrier, 2004); McKinney et al, 1990; Sierles et al, 2005; Steinman, Shlipak & McPhee, 2001). These doubts concern the colleagues of physicians at virtually all levels of training: medical students, physicians-in-training and practicing physicians. For example, in a study (Sierles et al, 2005) of medical students' attitudes toward gift-giving by pharmaceutical companies, 69% believed that gifts would not influence how they practiced, but only 58% believed that gifts from pharmaceutical companies would not affect colleagues' practices. Interestingly, another study (Palmisano & Edelstein, 1980) of medical students' attitudes toward gifts noted that while 85% of medical students felt that it would be improper for politicians to accept gifts, only 46% believed that it would be improper for them to accept a gift of equivalent value themselves.

Steinman, Shlipak & McPhee (2001) found that 61% of residents believed that they would not be influenced by pharmaceutical companies' marketing efforts, although only 16% were felt the same about their colleagues. Brett, Burr & Moloo (2003) found that most respondents viewed a wide variety of interactions between doctors and drug companies (e.g., free pens, expensive textbooks, free drug samples, free lunches) would be ethically acceptable. Respondents were more likely to express concerns about interactions and pharmaceutical companies' gifts as their value increased, when the situation involved recreational as opposed to professional activities, and when information provided to physicians during the interaction was perceived as biased or self-serving. Hodges (1995) examined the attitudes of psychiatric residents, and found that, while fewer than one third felt that pharmaceutical representatives were an accurate source of information about drugs, the vast majority surveyed (71%) did not wish these representatives banned from making presentations and 56% believed that receiving gifts would not affect their own prescribing behavior. Despite the above findings, Watkins & Kimberly (2004, p. 432) found that internal medicine residents' knowledge about the impact of marketing strategies on prescribing patterns remained very limited.

Turning to studies of practicing physicians, Halperin, Hutchison & Barrier (2004) found that while only 5% of practicing radiation oncologists agreed with the statement "my prescribing practices are affected" by gifts, 33% agreed with the statement "I believe that other physicians prescribing practices are affected." In the same study, the hypothesis that physicians believe that their conduct is less affected than those of their colleagues (i.e., "I am not influenced by gifts but someone else is") was very strongly supported ($p<0.0001$). Morgan et al (2006), in a survey of members of the American College of Obstetricians and Gynecologists, found that respondents were more likely to believe that their colleagues' prescribing would be influenced by gifts from pharmaceutical companies than their own prescribing habits would be ($p<0.0.002$).

Clearly, a widespread view among physicians and physicians-in-training is that their professional training somehow differentiates them from non-physicians, making them resistant to influences that might be expected to affect other humans and enabling them to appraise their patients' interests objectively and put those interests before all other considerations (Fischer et al, 2009; Donnell et al, 2009; Bihlmeyer, Schreiber & Farrand, 2008; Halperin, Hutchison & Barrier, 2004; Sierles et al, 2005). This is what is known as a self-serving bias – to "conflate what is fair with what benefits oneself" (Babcock & Loewenstein, 1997, p. 110). However, the data often does not support this view (Rawlins, 1984). Although doctors claim that gifts from pharmaceutical companies have little or no effect on their prescription behavior (Avorn, Chen & Hartley, 1982; Banks & Mainous, 1992; Chimonas, Brennan & Rothman, 2007; Gorski,1990; Hume, 1990; Sah & Fugh-Berman, 2013), a 2014 analysis by ProPublica found that physicians who received pharmaceutical company payments did prescribe differently from their colleagues who received no such payments; e.g., physicians who received gifts were two to three times as likely to prescribe brand-name drugs as others not receiving such gifts (Ornstein, Tigas & Jones, 2016). Another recent study (Yeh, 2016) examined the prescribing practices of 2444 physicians in the Massachusetts' Medicare prescribing database. Physicians who had accepted no pharmaceutical company gifts prescribed brand name (as opposed to generic) statins at a significantly lower rate (17.8%) than those who had received such gifts (22.8%). For every $1000 in pharmaceutical company gifts received, the rate of prescribing brand name statins increased 0.1% ($p<0.001$). These recent large-scale studies support the conclusions of previous studies using small samples (Orlowski & Wateska, 1992), and self-reported data (Bowman & Pearle, 1988), as well as a widely regarded (Blumenthal, 2004; Brett, Barr & Moloo, 2003; Katz, Caplan & Mertz, 2010) – although now somewhat dated - comprehensive review of the literature (Wazana, 2000). However, a more recent review of the literature (Fickweiler, Fickweiler & Urbach, 2017) also concluded that acceptance of gifts from pharmaceutical companies affects physicians' prescribing behavior and is likely to contribute to irrational prescribing of the company's drug.

What Do the Pharmaceutical Companies Say and What Is Said About Them?

A representative of the Pharmaceutical Research and Manufacturers of America (PhRMA, the pharmaceutical industry trade association) expressed the position of the organization regarding pharmaceutical marketing generally in the *Journal of Internal Medicine*:

> 'Although not all drugs are breakthroughs, the … assumption that therapies already on the market should not be promoted is troubling for two reasons. First, it assumes that every new physician graduates from medical school with full knowledge about every drug on the market. Second, it ignores the fact that scientists often discover new benefits as well as risks in existing drugs.
>
> … there is a need for responsible dissemination of information about drugs to physicians. Pharmaceutical companies know the most about their products, particularly new products. Hence they are the most knowledgeable source of information about these drugs. Without distribution of information by pharmaceutical companies, the diffusion of information about new medicines would take much longer and patients would be deprived of state-of-the art care (Beary, 1996, p. 635).'

Later, Bert Spilker, a senior vice president of scientific and regulatory affairs at PhRMA expressed the industry's position regarding pharmaceutical marketing and physicians specifically even more clearly:

> '[Critics] fear that physicians are so weak and lacking in integrity that they would 'sell their souls' for a pack of M&M candies and a few sandwiches and donuts … certainly the vast majority of physicians are able to resist this temptations (sic) and make decisions solely based on the best medical interests of their patients' (Spilker, 2002, p. 243).'

Interestingly, despite these industry protestations that gifts would not be expected to influence physicians, in an article tellingly entitled "An Insider's Perspective: Defense of the Pharmaceutical Industry's Marketing Practices," Bardes (2005) noted that pharmaceutical representatives "tend to be one sided" in their presentations to physicians. Many studies (Wazana, 2000; Cho & Bero, 1996; Carderelli, Licciardone & Taylor, 2006; Stryer & Bero, 1996; Zeigler, Lew & Singer, 1995) have characterized at least some of the information provided by pharmaceutical representatives as inaccurate, misleading, or biased, and usually favoring the representative's drug over that of other companies' offerings.

There are several other inherent problems with the pharmaceutical companies' position. First, pharmaceutical companies' gifts are, in fact, not truly gifts at all. In the U.S., to qualify as charitable gifts, the goods in question must exhibit a "detached and disinterested generosity" in order to be tax deductible (Commissioner v. Duberstein 363 U.S. 733 [1949], cited in Katz, Caplan & Merz, 2003, p. 14). Big pharma's "gifts" are, in fact, clearly identified by the companies as marketing expenses, not charitable gifts, and are therefore not, in fact, tax deductible. "[C]alling small tokens given as part of the sales activity of pharmaceutical firms 'gifts' is disingenuous and a transparent attempt to be nonjudgmental. These 'gifts' should be recognized for what they are: marketing wares" (Katz, Caplan & Merz, 2003, p. 14).

Second, major pharmaceutical companies (e.g., Merck, Lilly) have internal policies which forbid their employees from accepting gifts or limit the size of gifts to a minimal value (i.e., no more than $5 or $10) (Grant & Iserson, 2005). A manager at Eli Lilly commented that "we want to keep things straight, aboveboard, business" (Randall, 1991, p. 443). This manager, and by implication, his company, clearly understands that the acceptance of gifts, even small ones, has the potential to distort the behavior of the recipient, perhaps to the detriment of the company employing the gift recipient.

Third, even the U.S. Senate Finance Committee (Spithoff, 2014, p. 694) has recognized the inherent conflict between pharmaceutical companies' expressed rationale for gift giving to physicians and their business interests: "... it seems unlikely that this sophisticated industry would spend such large sums on an enterprise but for the expectation that the expenditures would be recouped by increased sales." It should also be noted that other professions (professional sports referees, college professors, judges, etc.) are prohibited from accepting gifts from anyone who might be influenced by their decisions (Minnigan & Chisholm, 2006).

Finally, the "explanation" by pharmaceutical companies that their marketing efforts were simply designed to provide information regarding their products to physicians is insufficient. Pharmaceutical companies keep detailed records regarding the prescribing habits of individual physicians and reward those who prescribe their drugs depending on the number of prescriptions written. If the pharmaceutical companies' purpose was simply to provide prescribing information to physicians, the information (and the gifts!) would be provided to all physicians, regardless of their prescribing efforts (Fugh-Berman & Ahari, 2008). Rational, for-profit pharmaceutical companies would not invest their stockholders' money unless they thought that doing so would enhance the companies' "bottom line" (Patel, 1994; Stokamer, 2003).

What Does the Theory of Gift Giving and Receiving Say?

Despite physicians' expressed confidence that they are largely immune from the efforts of pharmaceutical companies to influence their prescribing behaviors in ways that would better serve the purposes of the company instead of those of their patients, a substantial body of theoretical and empirical literature suggests reasons why this confidence could be mistaken. Some of this literature focuses on the manner in which gifts (regardless of size) influence human behavior and the role they play in human relationships. According to Katz, Caplan & Merz (2010, p. 13), "When a gift or gesture of any size is bestowed, it imposes on the recipient a sense of indebtedness.The obligation to ... reciprocate, whether on a conscious or unconscious level, tends to influence behavior..."

The social rule of reciprocity imposes on the recipient a requirement to repay gifts or favors (Cialdini, 1993). In other words, when someone gives us something, we are expected to return the favor. Hence, the phrase "much obliged" is often used as a synonym for "thank you."

The idea that the size of the gift affects the degree of influence (i.e., that large gifts would be more influential than small ones) seems reasonable but is not supported by social science research (Katz, Caplan & Merz, 2003; Dana & Loewenstein. 2003). The secret of the success of the world's record holder for car sales was to send a greeting card which included the phrase "I like you" to each customer each month (Cialdini, 1993, p. 174). In another example, after a pharmacy owner gave potential customers a $0.50 key chain when they entered the store, customers' retail purchases increased 17%, a statistically significant increase (Friedman & Herskovitz, 1990). When the Disabled American Veterans organization requested donations through direct-mail, the response rate was about 18% when no gift was included but doubled when inexpensive, customized address labels were included with the solicitation (Cialdini, 1993). Even a gift with no monetary value has been shown to influence buyer behavior significantly: Friedman & Friedman (1996) demonstrated that customers' mean purchase in a retail electronic store increased 69.6% ($p<0.01$) when they were merely thanked for their patronage. Based upon these results, it seems obvious that a physician who has received a gift – regardless of size – would be more likely to recommend a product of the company supplying that gift than a product of a competing company (Higgins, 2007).

Some of the most significant behavioral behavior are the simplest; i.e., food, friendship, and flattery (Wazana, 2000). A gift of food is an especially powerful tool in establishing a sense of social reciprocal obligation. As expressed by Bell (1931, p. 125-126), "Food is the key to all social intercourse." The inclusion of food in a social interaction, in and of itself, increases the persuasiveness of a presentation even if the source of the food is not the source of the persuasive communication itself (Janis, Kaye & Kirschner, 1965). Thus, it is hardly surprising that pharmaceutical companies spend huge sums on food for physician and physicians-in-training: after the University of Michigan Medical Center banned the provision of free lunches by pharmaceutical companies, the annual cost of the free meals which previously had been provided was found to be $2.5 million (Saul, 2006). In fact, DeJong et al (2016), in a cross-sectional study of over 275,000 physicians who received a single meal from a pharmaceutical company, found a significantly higher ($p<0.001$) rate of prescribing several of the company's branded drugs instead of generic equivalents. With respect to the friendship and flattery components noted above, pharmaceutical representatives have been described as "the most beautiful, friendliest, helpful … [and] flattering group anyone meets" (Grant & Iserson, 2005, p. 533).

Transparency

Although physicians have been shown to believe that their prescribing behavior is not affected by gifts from pharmaceutical companies, there is evidence that the public does not share this view. Although many patients recognize the widespread nature of physician-pharmaceutical company relationships, patients who are more likely to recognize this relationship express less trust in physicians and the healthcare system itself (Grande, Shea & Armstrong, 2012). As many as 78% of patients believe that gifts significantly affect physicians' prescribing behavior and therefore increase the cost of the drugs these physicians prescribe (Blake & Early, 1995). Also, after learning about pharmaceutical companies' gifts to physicians, nearly a quarter of patients changed their perception of the medical profession itself (Gibbons et al, 1998). In fact, this disapproval of physicians receiving gifts from pharmaceutical companies is increasing: Jastifer & Roberts (2009) reported that patients in their study were less approving of every type of gift to physicians than patients surveyed in the 1990s.

Many believe that increased transparency will lead to better healthcare outcomes at lower costs (Health Care Financial Management Association, 2017; Robert Wood Johnson Foundation, 2016), although not all agree (Frakt, 2016; Ubel, 2013). Regardless of the effects on costs, there is little doubt that there will be a trend to increased transparency in healthcare for the immediate future (Health Care Financial Management Association, 2013).

Although many physicians continue to believe that receiving gifts from pharmaceutical companies is an acceptable practice, this custom may be declining (DeLegge, 2012), especially as the practice receives additional scrutiny. As part of the Physician Payment Sunshine Act (part of the Affordable Care Act ("Obamacare"), the Centers for Medicare and Medicaid Services has published about 16 million financial transactions totaling nearly $10 billion between physicians and teaching hospitals and health care industries between August 2013 and December 2014 (Steinbrook, 2016). These sorts of public records will, almost certainly, become more widely available in the future. Unfortunately, information is only a precondition for change (Bandura, 1990). However, as their behaviors become more and more publicly understood, physicians may be influenced to decrease behavior which many of their patients frown upon (Jastifer & Roberts, 2009).

Conclusions

Despite many physicians' beliefs that they are immune to the influence of gifts from pharmaceutical companies (and pharmaceutical companies' furtherance of those beliefs), a substantial evidence exists that these beliefs are incorrect. The theory of gift-giving and gift-receiving provides an explanation for the fallacy of this self-serving position on the part of prescribers, as does the substantial evidence that physicians who have received gifts from pharmaceutical companies have different (and perhaps worse) prescribing habits than their peers who have received gifts.

An alternative point of view is that of the pharmaceutical companies, which like that of many for-profit enterprises is based upon the legal doctrine of *Nulla poena sine lege* (Latin for "no penalty without a law"), a legal which requires that one cannot be punished for doing something that is not prohibited by law (Dana, 2009). Based on this precedent, whatever pharmaceutical companies wish to spend on pharmaceutical gift giving, provided the stockholders do not object, is legal and acceptable, unless the applicable law is changed. The vast majority of pharmaceutical companies were recently estimated to spend 1900% more on marketing than they do on research and development (Sarich, 2016). Since pharmaceutical companies spent just under twice as much on marketing as they spent on R&D in 2007 (Gagnon & Lexchin, 2008), the trend of increasing marketing expenditures by pharmaceutical companies, including whatever gifts to physicians are allowable by law) seems unlikely to decrease in the immediate future.

As healthcare transparency records become increasingly available for public view, physicians may be forced by public pressure to cease (or at least, decrease) their willingness to accept gifts from pharmaceutical companies and prescribe drugs in a manner less fulfilling to the interests of pharmaceutical companies and more in the interests of the public at large. Only time will tell if physicians will finally be able to achieve the immunity from the subtle effects of pharmaceutical companies' gifts which they have claimed to have for so long, or if the gifts themselves will be outlawed.

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