What Social Science Research Teaches about Financial Incentives from Industry

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INTRODUCTION

Ethics in healthcare is a subject that has come under intense scrutiny in recent years. It is a popular topic in the public media and there is increasing pressure on professional societies to define ethical boundaries. Protection of the public is the primary goal of these efforts but professional societies like the American Academy of Audiology also have an obligation to protect its members by establishing policies that are aligned with state and federal laws.

Financial incentives provided by industry to health care providers are the subject of increasing attention in professional societies, medical schools, hospitals, and the public media. Gifts provided by industry, sometimes under the guise of education, are highly visible to the public. The pens, note pads, key chains, pen lights, and coffee mugs that were once viewed as harmless evidence of important partnerships with industry turn out to be not so harmless when considered in the light of social science research on the influence of gifts on behavior. Educational sponsorships, travel, meals, and equipment not only influence clinical practice in a way that is not in the best interest of patients, but also represent the *appearance* of a conflict of interest that is as harmful as a real conflict. Real and apparent conflicts ooze from the exhibit halls and party rooms of our national conventions.

The evidence of harm resulting from gifts from industry has resulted in some important policy changes. Several medical schools, including those at Stanford, Yale, UCLA, Boston University, and the University of Texas, have adopted no gift policies for their medical faculty. Many individual hospitals have announced similar policies. One health system in Minnesota and Wisconsin purged its four hospitals and 17 clinics of all gifts from pharmaceutical companies and sent the items they collected – all 18,718 of them – to a developing country. The American Medical Student Association has led the way among professional organizations by prohibiting all gifts from industry and requiring an oath of allegiance to that policy.

It is with this backdrop that the Ethical Practices Committee of our Academy has been reconsidering the AAA policy on financial incentives from industry. The result of those discussions is the draft policy that accompanies this article. The information presented here on the evidence related to the influence of gifts on clinical service provides the basis for the recommendation of a no-gift policy for Academy members.

There are many publications related to influence of gifts on behavior, including review articles, research reports, opinion pieces, and policies. This article will focus on evidence from the social science and medical research literature. Brennan et al. (2006), Katz, Caplan & Merz (2003), and Wazana (2000) provide excellent reviews of this area.

RESEARCH ON THE INFLUENCE OF GIFTS

Three research areas are relevant to this topic: the influence of gifts, self-serving bias, and attitudes of clinicians related to gifts from industry.

Influence of Gifts

There is a substantial body of evidence that gifts produce a feeling of indebtedness and obligation to repay on the part of the recipient. This phenomenon, referred to as “the norm of reciprocity” (Gouldner, 1960) or the “rule of reciprocation” (Cialdini, 1993) is a pervasive finding across cultures and societies, both primitive and advanced (Mauss, 1954; Lévi-Strauss, 1969).

One university professor with too much time on his hands demonstrated the principle by sending holiday cards to strangers. He received many return greetings from people who didn’t even bother to find out the identity of the sender (Kunz & Woolcott, 1976). The feeling of obligation evoked by the unsolicited gift elicited reciprocal behavior.

The power of reciprocity is evident in the following findings:

a) feelings of obligation to reciprocate are unrelated to the value of the gift (Mauss, 1954; Lévi-Strauss, 1969);
b) gifts produce a feeling of obligation even when the giver is disliked (Regan, 1971);
c) gifts that are unwanted or unsolicited create feelings of obligation to the giver (Cialdini, 1993), a principle that is well-known to marketers;
d) reciprocal giving is often unequal - the return gift may have a much higher value than the original gift (Cialdini, 1993; Lévi-Strauss, 1969). Marketers know that giving can be profitable.

The finding that the effect of a gift is unrelated to its value is particularly important in view of the common policy of establishing a threshold value below which gifts are acceptable and above which they are not. The finding that gifts of minimal value can have similar influence to more expensive ones suggests that policies of this sort are not likely to avoid or reduce the harmful influences. In fact, it can be argued that gifts of small value are more harmful because industry can give a lot more of them.

Meals are arguably the most harmful form of gift. Evidence of the influence of food on attitudes and behavior has been in the social science literature for decades. Razran (1940) and Janis et al., (1965) demonstrated experimentally that subjects were more likely to accept persuasive messages that were accompanied by food. As one investigator put it, “Food is the most commonly used technique to derail the judgment aspect of decision making” (Katz et al., 2003). Some particularly disturbing effects of complementary meals are the following. Industry-sponsored meals were found to be correlated with requests by physicians to add certain medications to hospital formularies. Similarly, accepting funding to attend a symposium correlated with hospital formulary addition requests (Chren & Landefeld, 1994). This effect persisted for at least two years. Physicians attending industry-sponsored grand rounds were more likely to prescribe drugs manufactured by the sponsor *even when they didn’t remember who the sponsor was* (Spingarn et al. (1996). This effect probably resulted from the influence of the sponsor on the content of the presentation. When the content of an education event was controlled by a sponsor, prescribing practices of physicians were influenced in favor of the sponsoring company (Bowman & Pearle, 1988).

Self-Serving Bias

Studies of self-serving bias reveal some fascinating aspects of human behavior. This phenomenon is evident when opinions about fairness are influenced by self-interest. It accounts for the common belief of clinicians that gifts influence others but not themselves.

Self-serving bias has been studied by experiments in which one subject is given the authority to divide payment with another subject (Messick & Sentis, 1979, 1983). Two subjects are given a repetitive task for which they will be paid. The payer was told to use a formula that is fair. Payers used three kinds of formulae – equal pay, pay rate based on time, and pay rate based on productivity. Payers consistently chose the formula that resulted in higher payment for themselves.

Self-serving bias has been observed to influence attitudes about gifts in healthcare. For example, 61% of physicians reported that gifts don't influence their practice but only 16% thought they don't influence others. In addition, medical students were significantly more likely to think that gifts were problematic for public officials than for physicians (Palmisano & Edelstein (1980). Physicians that attended an industry-sponsored seminar that included travel to a resort location increased the usage of the sponsor's drug but denied that attending the seminar had an influence (Orlowski & Wateska, 1992).

Attitudes

There are a number of studies that report attitudes of healthcare providers toward gifts from industry. One report indicated that most physicians deny that gifts could influence their behavior – self-serving bias. In spite of compelling evidence that meals have a strong influence on attitudes and behavior, one study found that only 12% of physicians felt that accepting free meals from pharmaceutical companies is unethical (Poirer, Giannetti, & Giudici., 1984). Another study found that patients were more likely than physicians to believe that gifts have a harmful influence (Gibbons et al. (1998). One report noted a strong attitude that pharmaceutical representatives should not be speakers at educational events (McKinney et al., 1990).

CONCLUSIONS

In response to the overwhelming evidence of the harmful effects of industry gifts to healthcare providers, Orlowski and Wateska (1992) wrote

> Patients have a right to expect that a service or product is recommended or prescribed because it is needed and because it is the best, most efficacious, safest, and most cost-effective, based on sound professional judgment unbiased by extraneous factors or inducements.

The expectation of patients that their healthcare is based on their best interests is compromised when clinicians receive gifts from companies whose products they recommend, prescribe, or sell. Research on the influence of gifts on healthcare providers, only a small sample of which is reviewed here, suggest the following conclusions..

- Limiting the size of the gift (current policy of many organizations including AAA and AMA) is based on an incorrect model of human behavior. The strength of the influence is unrelated to gift value.
- Gifts of low value can be very effective because givers trade off gift value for volume of gifts.
- The influence of gifts cannot be prevented by training because people are often not aware of their biases.
- Attitudes about gifts from industry are shaped by self-serving bias.
- Gifts that involve food are the most influential.
- There are no findings that indicate a positive influence of gifts from industry on clinical service.

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