Corporate Funding and Conflicts of Interest

A Primer for Psychologists

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A presidential task force on external funding was established by the American Psychological Association (APA) in 2003 to review APA policies, procedures, and practices regarding the acceptance of funding and support from private corporations for educational and training programs; continuing education offerings; research projects; publications; advertising; scientific and professional meetings and conferences; and consulting, practice, and advocacy relationships. This article, based on the Executive Summary of the APA Task Force on External Funding Final Report, presents the findings and unanimous recommendations of the task force in the areas of association income, annual convention, research and journals, continuing education, education, practice, and conflicts of interest and ethics. The task force concluded that it is important for both APA and individual psychologists to become familiar with the challenges that corporate funding can pose to their integrity. The nature and extent of those challenges led the task force to recommend that APA develop explicit policies, educational materials, and continuing education programs to preserve the independence of psychological science, practice, and education.

Keywords: Task Force on External Funding, conflicts of interest, ethics, pharmaceutical industry, APA governance

You shall not pervert judgment, you shall not favor someone's presence, and you shall not accept a bribe, for the bribe will blind the eyes of the wise and make just words crooked.

—Deuteronomy 16:19, Laws of Judges

A number of sciences and professions have recently become aware of and concerned about the extent to which corporate funding has influenced or will influence their activities and directions. For example, the 54th Annual Meeting of the American Institute for Biological Sciences was entirely devoted to bioethics in a changing world and the responsible conduct of science[1] and included a plenary session titled *Public Citizenship and the Duties of Scientists: Avoiding the Best Science Money Can Buy* (Shrader-Frechette, 2003). Various medical journals have had difficulty finding reviewers who are independent of pharmaceutical funding and have published new guidelines for reviewers.

Philip Zimbardo, then president of the American Psychological Association (APA), was appalled by the extravagant exhibits sponsored by pharmaceutical companies at the 2002 convention of the American Psychiatric Association (as were newspaper reporters; see Seligman, 2003; Vedantam, 2002). His concern that prescription privileges for psychologists would be accompanied by increasing pharmaceutical industry interest in funding APA activities led to discussions with the Board of Directors and to the appointment of the APA Task Force on External Funding. The purpose of the task force was to review the experiences of other organizations, sciences, and professions receiving corporate funding; to consider relevant scientific literature bearing on this issue; and to suggest policies and procedures to protect the integrity of the association without unnecessarily restricting APA activities.

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This article is based on the Executive Summary of the Task Force on External Funding Final Report. Although the authors have edited some language, added ideas to present the information to a broader audience, and updated references and some of the findings, most of the findings and all of the recommendations remain those of the Task Force on External Funding. All recommendations were unanimous.

This article reflects the collaboration and contributions of all members of the Task Force on External Funding, which was created by Philip Zimbardo (APA President 2002) and cochaired by Ronald E. Fox and Wendy S. Pachter. The task force members were David Oliver Antonuccio, Department of Psychiatry and Behavioral Sciences, University of Nevada School of Medicine; Morgan Sammons, Mental Health Department, Naval Medical Clinic, Annapolis, Maryland; Charles Roberts Schuster, Grosse Pointe, Michigan; Maxine L. Stitzer, Department of Psychiatry, Johns Hopkins Bayview Campus; and Jalie A. Tucker, Department of Health Behavior, School of Public Health, University of Alabama at Birmingham. We acknowledge the tireless administrative assistance of Paul Donnelly of the American Psychological Association (APA). Other APA staff who generously contributed to the work of the task force include Jodi Ashcraft, Cynthia Belar, Merry Bullock, Nathalie Gilfoyle, L. Michael Honaker, Charles L. (Jack) McKay, Geoffry Reed, and Gary VandenBos. We also thank Rabbi Daniel Lerner for bringing to our attention the quote that appears at the beginning of this article.

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[1] The complete title of the meeting was "Bioethics in a Changing World—Responsible Conduct of Science: Collection, Analysis, and Reporting of Data; Public Dissemination of Sensitive Scientific Information; Training the Next Generation."

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Problems may arise, of course, as a consequence of outside funding from any source when the values of the donor and those of the recipient are either in conflict or incompatible. It is sobering to note, however, that a broad range of industries, including tobacco (Bero, 2003), lead (Markowitz & Rosner, 2003), food (Simon, 2006), real estate development (Ottaway & Stephens, 2003a, 2003b, 2003c), and pharmaceuticals (Angell, 2004; Mundy, 2001; Rennie, 2003), have used similar and often hidden strategies to influence a range of sciences and professions. Front organizations—industry-funded grassroots, consumer advocacy (Herxheimer, 2003; Mundy, 2003; Stern, 2003), research, and educational organizations whose primary goal is to promote marketing, influence regulations, or advance other industry interests—are among the strategies intentionally designed to obscure the actual sources and amounts of funding for activities favoring corporations (Beder, 2002; Center for Science in the Public Interest [CSPI], 2003a). In fact, much of the knowledge available to investigators about such industry-funded activities has come through documents only made available in the discovery process of litigation (Castleman, 2003). This is true of the pharmaceutical industry as well as the lead and tobacco industries.[2]

The task force reviewed the consequences of external funding of a range of activities across several sciences and professions but chose to focus on pharmaceutical funding as a case example for three reasons. First, the effects of pharmaceutical funding on the science and profession of medicine have been very well-documented and provide a telling example of the distortions and unintended consequences that can occur when academic centers, scientists, and practitioners become overly dependent on for-profit industries. Second, pharmaceutical companies have expressed interest in funding activities of the APA (and, in fact, have already done so to a limited extent), and that interest is expected to increase as more psychologists obtain prescription privileges. Finally, the pharmaceutical industry is of interest because it has been enormously wealthy and politically influential and therefore has the potential to exert a significant impact on the field of psychology.

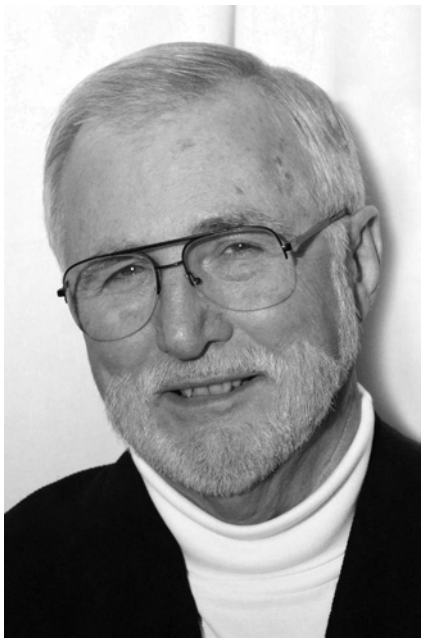
Many readers may find it difficult to understand how the distortions that arose within the field of medicine could occur in such a well-established and powerful profession. That may be because they do not fully comprehend the size and scope of the pharmaceutical industry, the significant role that it has come to play in the cost of medical care, or how it has benefited from a very favorable social and political climate in the United States. The result has been an enormously powerful industry with virtually unprecedented financial resources to pursue its own agenda. The pharmaceutical industry is so profitable and so influential that it is unlikely that APA or any similar organization is going to change it or succeed in preventing its influence on the health care system or on psychology as the number of interactions with drug manufacturers increases.[3] What psychologists can do is inform themselves of the nature of this business and make certain that they have adopted appropriate policies and procedures to help avoid the more egregious mistakes of others.

The task force report is a snapshot of a dynamic situation. Communications firms and industry marketing efforts move to new methods of influence as the old ones are discovered or become less effective. It is for these reasons that the task force strongly encouraged the APA Board of Directors to authorize the development of educational and training modules addressing the range of issues that are associated with external funding identified in the report, in addition to developing policies to protect the integrity of the association.

The task force report is presented in three parts, available online at http://www.apa.org/about/taskforce.html. This article is based on Part I, Executive Summary, which consists of summaries of the problems identified by the various task force subcommittees in their assigned domains, along with recommendations that should be included in any solutions that may be adopted by the various governance groups to whom the report was referred for action or implementation. In preparing the report, we on the task force did not intend to develop specific rules and

[2] CSPI has, since 2003, published a manual listing health and environmental professional associations, charities, and industry front groups receiving corporate support (CSPI, 2003a). CSPI has also encouraged reporters to use this information when reporting on the activities of these associations and other organizations.

[3] However, in May of 2004, an unprecedented settlement of consumer protection claims regarding the off-label marketing practices of Warner-Lambert in promoting Neurontin was announced by attorneys general from 50 states. The settlement, which also resolved investigations by the National Association of Medicaid Fraud Units and the U.S. Attorney's Office for the District of Massachusetts, required payment of $430 million to federal and state authorities. Other investigations, settlements, and legal proceedings against pharmaceutical companies were also announced by state and federal authorities during 2004 (National Association of Attorneys General, 2004).



Ronald E. Fox

procedures that should be slavishly followed. Instead, we tried to develop recommendations for the appropriate governance groups (e.g., Continuing Education Committee, Committee for the Advancement of Professional Psychology, CEO's office) to consider and then determine what, if anything, should be done. We wanted to identify problems that need to be addressed, but it is up to those most familiar with the workings of the organization as a whole to formulate specific actions or changes. The recommendations presented here and in the Executive Summary were unanimously approved by all of the members of the task force. The recommendations are not presented in rank order of significance, but some are obviously of greater consequence than others.

Part Two of the report is a list of references and resources consulted in compiling the overall report. That list is more inclusive than those in the subcommittee reports or at the end of this article.

Part Three contains the full reports of each subcommittee. There is some redundancy in the reports due to the fact that the subject matter of some subcommittees overlapped. The subcommittee reports were formally accepted by the task force, but they were neither voted on nor approved in detail.

Task Force on External Funding: Charge

In view of changing relationships among corporate funding organizations, scientists, and professionals who apply scientific findings, the APA Task Force on External Funding was created to

- review APA policies, procedures, and practices regarding the acceptance of funding and material support from private corporations and other organizations for educational and training programs; continuing education offerings; research projects; publications; advertising; scientific and professional meetings and conferences; and consulting, practice and advocacy relationships; and
- recommend such changes and policies as are deemed necessary to enhance and protect the integrity and ethical standards of psychology.

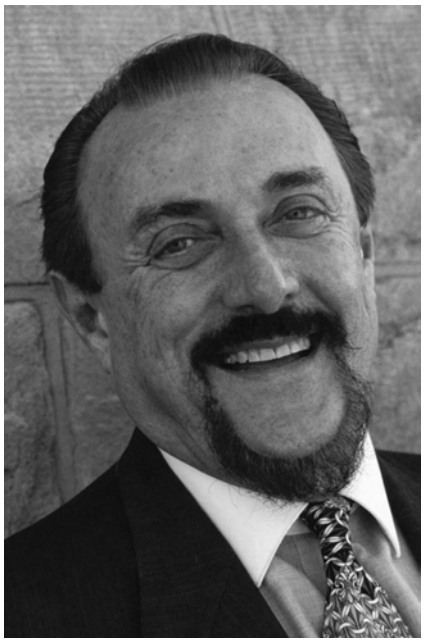
Subcommittee Summaries and Recommendations

The section of the Executive Summary devoted to each topic begins with statements of problems, using the pharmaceutical industry as an example. Each section concludes with recommendations for changes in that specific area.

Association Income

Enormous financial and political influence has enabled the pharmaceutical industry to assume a significant role in directing medical treatment (Brennan et al., 2006), clinical research, and physician education (Antonuccio, Danton, & McClanahan, 2003; Associated Press, 2000; Coyle, 2002b; Relman & Angell, 2002; Wazana, 2000).

- The pharmaceutical industry influences most aspects of the American health care system that are relevant to its business interests: nonprofit patient groups (Ginsberg, 2006), physicians (Choudhry, Stelfox, & Detsky, 2002), professional and academic institutions, the U.S. Congress, and the Food and Drug Administration (FDA; Antonuccio et al., 2003; Drinkard, 2005; Relman & Angell, 2002).
- The two largest associations representing the pharmaceutical and biotechnology industries are headed by former congressmen who previously chaired committees relevant to those interests. Billy Tauzin, president and CEO of the Pharmaceutical Research and Manufacturers of America, chaired the House Committee on Energy and Commerce when the Medicare prescription drug law was passed (Drinkard, 2005). U.S. Representative James Greenwood left his position as chairman of the House Committee on Energy and Commerce Subcommittee on Oversight and Investigation to become the president and CEO of the Biotechnology Industry Organization (BIO) in 2005 (BIO, 2006).
- Pharmaceutical industry money is so crucial to the funding of university medical centers that no threats or offers need to be made for a company to exert its influence (CSPI, 2003b; Elliott, 2001a).
- The pharmaceutical industry has the largest lobbying force of any industry (Drinkard, 2005; Relman & Angell, 2002). The pharmaceutical and health products industry spent $612 million on lobbying from 1998 to 2005, working on more than 1,400 congressional bills (Center for Public Integrity, 2006).
- In 2001, the pharmaceutical industry spent over $19 billion on marketing (Antonuccio et al., 2003). It has been estimated that $35 billion was spent that year



Philip Zimbardo

on "marketing masquerading as education" and "marketing masquerading as research," costs that were then passed on to the public via higher retail prices for the medicines they purchased (Angell, 2004).

- U.S. citizens pay far more for prescription medications than do citizens of any other country, even though almost 50% of drugs sold in the United States are manufactured in other countries (Relman & Angell, 2002).
- Pharmaceutical firms spend enormous sums to exploit legal loopholes that enable them to restrain generic manufacturers from bringing less expensive products to the market. For example, the makers of Paxil used such methods to extend its original patent protection by over five years. Ironically, a major proportion of the basic research leading to the discovery of Paxil was done at taxpayer expense (Relman & Angell, 2002).

Recommendations

1. External funds should never be a part of APA's operating or core budget, including both direct and indirect costs.
2. It is strongly recommended that external funds never be used to meet budget shortfalls or ongoing, regular governance projects, including both direct and indirect costs.
3. The task force is concerned about the potential consequences of industry funding to each of APA's directorates. Given industry marketing strategies, the benefits and consequences of such funding should be examined closely, and careful consideration should be given to developing APA policy in this area.
4. That the Board of Directors appoint a combined governance/staff work group to develop specific recommendations for the Board's approval regarding the accumulation and use, if any, of external funds.

Annual Convention

Philip Zimbardo observed the following at the 2002 American Psychiatric Association convention:

Dozens of huge exhibits, many occupying at least 250 square feet in area, most of which at least 20 feet tall, filled the center of the convention arena, on separate "islands" (stand-alone exhibit areas). In addition to their sheer bulk, many displays featured the name of the primary drug being promoted more prominently than they did the name of the pharmaceutical company. Moreover, they were each staffed by large sales forces (as many as 15 for any one exhibit) wearing colorful logo shirts or uniforms. In addition to providing information to attendees, the sales representatives were there to give away a variety of commercial gifts, administer unvalidated tests, and engage in other promotional activities. These large booths were also filled with an assortment of unusual features to attract attendees, such as Zen gardens (10 feet long), aquaria, relaxing music listening areas, mazelike tunnels in which audio and video presentations simulated the psychotic experience (Seligman, 2003), a music shack where attendees had their photo taken while playing a musical instrument that was made into the cover of a gift blues music CD for them, large sculptures, and more. These exhibits were so big and so complicated that each required three or four days to assemble and several days more to disassemble. One exhibit booth alone cost more than $450,000 to create, according to the design coordinator—and it was to be used only at one convention of the American Psychiatric Association.

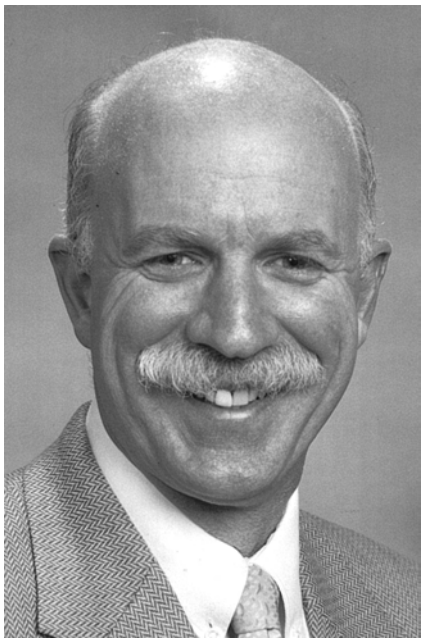
A reporter covering the event for *The Washington Post* also described the scene: "In one part of the convention hall, companies erected 20-foot-high monuments to their medicines and handed out promotional materials, candies and gifts" (Vedantam, 2002, ¶ 3). In a further illustration of the industry's influence on the convention, the reporter noted, "And in several dozen symposiums during the weeklong meeting, companies paid the [American Psychiatric Association] about $50,000 per session to control which scientists and papers were presented and to shape the presentations" (Vedantam, 2002, ¶ 3).

Recommendation

5. In order to balance the financial interests of APA and exhibitors with membership values and exhibits that reflect the professional values of the association, 12 specific recommendations are made on such items as height limits, banners, staffing, gifts, and so forth (see the Convention Subcommittee Report available at http://www.apa.org/about/SubcommitteeReports.pdf, pp. 35–37).

Research and Journals

Increasingly, medical research is funded by pharmaceutical companies and others in private industry with a vested



David O. Antonuccio

interest in the outcome of the research (Albee, 2002; Blumenthal, 2003; Gorner, 2000; Mello, Clarridge, & Studdert, 2005; Mundy & Marcus, 2000; Vedantam, 2001).

- About 28% of the scientific experts employed by the FDA to evaluate new drugs disclose a conflict of interest because of pharmaceutical industry ties, and up to 73% of advisory committees include at least one committee member who has disclosed a conflict, such disclosure rarely (about 1%) resulting in recusal (Elliott, 2001b; Lurie, Almeida, Stine, Stine, & Wolfe, 2006).
- The major source of pharmaceutical innovations is publicly funded medical research, not the industry itself. For example, 8 of the 10 most popular drugs produced by one of America's largest pharmaceutical companies and most of today's anticancer drugs were developed at the National Institutes of Health (NIH; Relman & Angell, 2002).
- In recent years, more than half of clinical trials have been shifted to private practice settings, where the industry has more control over critical elements of the research. In an effort to regain or hold on to the lost income from manufacturers, many large medical centers have made significant changes in policies and procedures to cater more to the industry they are supposed to evaluate impartially (Relman & Angell, 2002). There is significant variability among academic medical centers about whether sponsors are allowed to insert their own statistical analyses in manuscripts, to draft the manuscripts, and to prohibit the sharing of data with third parties after the research is complete (Mello et al., 2005).
- Substantially more than half of the money for clinical trials in the United States comes from the industry rather than from NIH (Bodenheimer, 2000; Moses, Dorsey, Matheson, & Thier, 2005).
- The FDA, which is supposed to regulate pharmaceutical products, is dependent on user fees from the pharmaceutical industry to process drug approval applications (Center for Public Integrity, 2006). Approximately half of the FDA budget for drug evaluations comes from pharmaceutical firms (Relman & Angell, 2002).
- Overwhelming data show that researchers funded by pharmaceutical companies that sell the drug they are evaluating tend to produce results favorable to that drug (Bekelman, Le, & Gross, 2003; Bhandari et al., 2004; Bodenheimer, 2000; Coyle, 2002b; Lexchin, Bero, Djulbegovic, & Clark, 2003). For example, 96% of researchers writing favorably about a drug for hypertension were funded by the manufacturer that produced and sold that drug, but only 37% of those not funded by the company reported favorable results (Gorner, 2000).
- In search of easier profit, the thrust of industry-supported research has shifted from trying to find causes and mechanisms of disease to certifying "me-too" drugs (copycats of negligible improvement or added value; Angell, 2004; Gorner, 2000).
- Almost half of medical school faculty members who serve on institutional review boards also serve as consultants to industry (Campbell et al., 2003). Moreover, institutional review board members do not always disclose their financial relationships with industry, even when they are making decisions about research protocols sponsored by the company with which they have a relationship or by a competing company (Campbell et al., 2006).
- Of patients in cancer-research trials who were interviewed about their attitudes on financial ties between researchers and medical centers, 62% trusted that an oversight system was in place to monitor and manage such potential conflicts of interest (Hampson et al., 2006).
- The pharmaceutical industry is biasing the evidence base by increasing their control of investigators, research designs, and when or whether results are published (Bodenheimer, 2000; Bodenheimer & Collins, 2001; Lexchin et al., 2003; Melander, Ahlqvist-Rastad, Meijer, & Beermann, 2003; Vedantam, 2001).
- Evidence of the potentially extensive role of ghost writing (i.e., industry-authored publications in which the identified authors may have never actually seen the raw data) in the scientific literature (e.g., Healy, 2006; Healy & Cattell, 2003; Mowatt et al., 2002) highlights the problem of poor access to raw scientific data. Despite a 1999 law ostensibly requiring public disclosure of raw data from NIH-funded studies, all requests for data access to date have been denied (Lenzer, 2006).
- Agreements by the drug industry to register clinical trials and make data available have had disappoint-

ing results (Rowland, 2005; Zarin, Tse, & Ide, 2005).

Recommendations

6. That all raw data for any study published in a psychology journal should be made available to any qualified scientist, allowing for independent review of data and data analyses.
7. That scientists participating in industry-sponsored research have input into the study design, be satisfied with the design and measurement integrity of the study, offer signed assurance that they had independent access to all raw data and contributed to the writing of any manuscript submitted to a psychology journal.
8. That full public disclosure be required of all financial conflicts of interest for any psychology-sponsored presentation, publication, electronic mailing list, interaction with a research human subject, or policy-making public meeting. Further, that all journal reviewers be required to disclose such conflicts and be excluded from peer review of articles evaluating products related to any stated financial conflicts.
9. That, at a minimum, journals should have a disclaimer about the accuracy of claims made in advertisements. A significant portion (perhaps 25%) of selected industry advertising revenue should be set aside to support data-based perspectives (possibly through scheduled debate or other continuing education [CE]) that might otherwise be stifled in those areas in which one industry dominates the advertising agenda.
10. That all initiated clinical trials be registered in a public registry such as http://www.clinicaltrials.gov prior to trial implementation in order to qualify for publication in any APA journal. APA should consider starting its own clinical trial registry.

Continuing Education

- The pharmaceutical industry spends billions of dollars on continuing medical education (CME) because they have learned it is a powerful tool a company can use to deliver its message to key audiences and get those audiences to take actions that benefit their products (Goldfinger, 1990; Hensley, 2002b; McCarthy, 2000; Relman, 2001a; Wazana, 2000).
- Most companies pay for CME from their marketing budgets, a fact that speaks for itself (Relman & Angell, 2002).
- The pharmaceutical industry is assuming a role in CME that is inappropriate for an industry with a vested interest in selling prescription drugs (Goldfinger, 1990; Pear, 2002; Relman, 2001a).
- The professional bodies traditionally responsible for CME have been co-opted by the industry (Hensley, 2002a; Relman & Angell, 2002).
- Marketing concerns have taken priority over scientific goals in continuing education offerings funded by pharmaceutical companies (Angell, 2004), and disclosure alone is sometimes not sufficient to allow for correction of bias (Bero, 1999, 2003).
- Once established, it is difficult to disentangle the relationship between industry and the training of professionals (Kuehn, 2005; Moynihan, 2003a, 2003b; Watkins & Kimberly, 2004).

Recommendations

11. That APA adopt a policy on disclosure of funding sources and potential conflicts of interest for all individuals and entities seeking APA approval for CE presentations.[4]
12. APA should explore the option of not offering CE credits for industry-funded courses.

Additional CE recommendations appear in the following section, which is based on the report of the Education Subcommittee.

Education

Numerous experts have documented ways in which university scientific work has been extensively contaminated by corporate funding, arguing for a complete separation of academic research and researchers from corporate funding (Bok, 2003; Brennan et al., 2006; Greenberg, 2003; Relman, 2001b).

- Aggregated results of several studies show a statistically significant association between industry sponsorship and proindustry conclusions of investigators (Bekelman et al., 2003; Wazana, 2000).
- Some corporations have pilloried and intimidated academicians whose research was viewed as contrary to the interests of the corporation (Needleman, 1992). Several pharmaceutical firms have threatened researchers (Bodenheimer & Collins, 2001; Morin & Deane, 2003), interrupted trials, and blocked publication of unfavorable results (Bok, 2003; Greenberg, 2003).

Recommendations

13. That APA members should be advised of the potential biases inherent in accepting inducements for their participation that might affect the selection of texts, the use of particular tests, and/or sponsorship of CE courses.
14. That APA seminars, lectures, or CE courses presenting commercial products should also discuss competing products and provide information on how to access that information.
15. That APA staff and attendees at APA-sponsored functions must be apprised of and report on any

[4] The task force reviewed the APA conflicts disclosure policy but believed that more explicit policy and enforcement should be considered.

potential sources of conflict of interest in presenters or external funding sources of the event.

16. That CE seminar participants should be asked to evaluate the perceived promotional or commercial bias in presentations and, when applicable, describe the manner in which they felt the bias was shown.
17. That all externally sponsored CE programs should be reviewed by the appropriate oversight group(s), which should also consider developing procedures for evaluating outcomes, notifying violators of rules along with sanctions against further participation or sponsorship.
18. That the Board of Directors should authorize funding to develop educational and training modules addressing the range of issues associated with external funding.

Practice

- Gifts from pharmaceutical firms to providers significantly increase the cost of medical care and the expenditures on prescription drugs (Appleby, 2001a; Brubaker, 2002; Coyle, 2002a; Dana & Loewenstein, 2003; Dember, 2001; Maguire, 2001; Pear, 2002; Siegel, 2002; Shapiro, 2004; Torassa, 2002).
- Pharmaceutical companies are well aware of the research literature showing that even small gifts influence or bias the recipient physicians. That awareness may be why many of them restrict their own employees from accepting gifts of any size (Brennan et al., 2006; Dana & Loewenstein, 2003).
- Numerous studies have shown that limiting the size of gifts, educating providers, or requiring mandatory disclosure do not eliminate biases favoring the industry that provides the gift (Dana & Loewenstein, 2003; Dember, 2001; Hall, 2001).
- Meeting with pharmaceutical representatives (Shapiro, 2004; Watkins et al., 2003), attending industry sponsored CE, accepting travel or lodging funds, and attending presentations by pharmaceutical representatives all lead to nonrational prescribing practices (Appleby, 2001b; Coyle, 2002a; Dember, 2001; Hall, 2001; Torassa, 2002; Wazana, 2000).
- The largest segment of the pharmaceutical industry's marketing budget is spent on direct promotion of products to doctors (Dana & Loewenstein, 2003; Japsen, 2001).
- The penetration by the pharmaceutical industry into the medical culture is so pervasive that when the American Medical Association prepared to roll out an educational campaign reminding doctors to be wary of the effect of acceptance of gifts, they turned to pharmaceutical companies to underwrite the project (Appleby, 2001a) and only gave up on the request when there was a public outcry.

Recommendations

19. That psychologists be aware that advertising represents a likely source of unrecognized influence on decision making regarding pharmaceutical recommendations. Advertising materials such as pens, mugs, and notepads are visible not only to psychologists but also to their patients. Presence of such materials in the clinician's office is likely to be interpreted by patients as tacit endorsement by the psychologist of the product being advertised. Accordingly, it is recommended that psychologists do not display drug-related advertising material in their place of work.
20. That psychologists understand the effects of personal relationships with industry representatives on their decisions regarding patient care.
21. That psychologists should be discouraged from accepting gifts, perquisites, or other benefits from pharmaceutical representatives, even when such gifts are of modest value. Examples of such gifts might be a noontime lunch accompanied by a lecture or educational material regarding general management of a disorder. Acceptance of reimbursement for attendance at conferences or seminars, reimbursement for travel, tickets to entertainment events and similar events is not considered appropriate.

Conflicts of Interest and Ethics

A number of practices have been identified across professions, sciences, and industries that have the potential to seriously interfere with the integrity of professional work or the scientific enterprise. The APA Ethical Principles of Psychologists and Code of Conduct (APA, 2002; hereafter referred to as the Ethics Code) addresses a number of the problems directly and well, for example, those involving ghostwriting and publication credit, duplicate publication of research results, and responsibility for publications. However, several issues are raised by the literature on conflicts of interest or by experience that warrant further consideration by the Ethics Committee or others within APA.

- How much due diligence should be required of a psychologist interested in being a consultant or receiving a grant? For example, what is reasonable for a psychologist to do to learn who is truly funding a project if a corporation is using one or more front groups to develop an educational program, contract for research, or find therapists to lead groups?
- If a psychologist finds out that industry is funding his or her work and believes that conflicts with the independence of the psychologist are likely or inevitable, what is the responsibility of the psychologist?
- Ethical Standard 1.01, Misuse of Psychologists' Work (APA, 2002, p. 1063), requires psychologists to take "reasonable steps to correct or minimize the

misuse or misrepresentation" (p. 1063) of their work if they learn about such misuse or misrepresentation. What steps are required of a psychologist to find out about misuse or misrepresentation of their work? What steps are reasonable to correct or minimize the misuse or misrepresentation?

- Conflicts of interest between a psychologist and an organization such as a corporation are dealt with in two places in the Ethics Code, and these provisions differ in what they require of the psychologist. On the one hand, Ethical Standard 1.03, Conflicts Between Ethics and Organizational Demands (APA, 2002, p. 1063), seems to state that a psychologist is not required to resolve the conflict in a way that adheres to the Ethics Code if he or she is affiliated with or employed by a corporation. On the other hand, Ethical Standard 3.06, Conflict of Interest (APA, 2002, p. 1065), states that a psychologist should avoid taking on such a role if he or she has not already done so. This discrepancy does not seem helpful to psychologists looking for guidance about ethical behavior when working in the complex context of corporate consulting or contracting, particularly if a psychologist finds out about a problem in the course of employment or consulting with a corporation. Having such a soft standard for those already employed by corporate entities does not give them the professional institutional support they may need to be whistleblowers or to try to change the situations in which they may find themselves.
- Disclosure of financial or other conflicts of interest is often thought to be a remedy for such conflicts when they arise in relation to publications, conference presentations, and continuing education. Although disclosure is a good idea, it is sometimes not sufficient for correction of bias (Bero, 1999, 2003). Accuracy of disclosure and clarity about who is accountable are two issues that may not be resolved by disclosure alone. Also, because bias may not be a deliberate, intentional choice (Dana & Loewenstein, 2003), disclosure of information may not be sufficient to override the effects of a biased presentation.

Recommendations

22. Guidelines or educational materials should be developed by APA to assist psychologists in understanding and knowing how to identify possible front organizations and to assist with the ethical issues involved in negotiating contracts with corporations.
23. A consistent and meaningful conflict of interest standard could be developed in the next Ethics Code revision that assists both contractors and employees in confronting the ethical dilemmas they may encounter.
24. APA could: (a) encourage research on the effects of disclosure of various types of bias on outcomes of CME, evaluation of published information, and oral presentations; (b) assess the extent to which disclosure is sufficient in those activities and the circumstances under which it cannot be sufficient; and (c) develop policies for those instances in which disclosure is not sufficient to overcome bias (e.g., do not allow CE credit, or require industry-funded or potentially biased journal articles to be published with others with opposing views or results).

Concluding Notes

The report of the Task Force on External Funding was completed in late November of 2003. Two weeks later, the *Los Angeles Times* printed the first of a series of articles by Pulitzer prize-winning investigative reporter David Willman addressing conflicts of interest with the pharmaceutical industry in the intramural program at NIH (Willman, 2003). These articles led to a hearing, "Avoiding Conflicts of Interest at NIH," on January 22, 2004, by the Senate Appropriations Committee (National Institutes of Health, Office of Legislative Policy and Analysis, 2004). Hearings were also held by the House Energy and Commerce Oversight and Investigations Subcommittee (*NIH Ethics Concerns*, 2004). The chair of the House subcommittee unexpectedly announced in July 2004 that he was leaving Congress to become president of BIO and therefore recused himself from the NIH inquiry (Steinbrook, 2004). When NIH was slow to provide information about corporate consulting payments and grants of stock and stock options to ranking NIH officials, the subcommittee requested information from pharmaceutical companies. It became evident that NIH did not know the extent of the financial relationships of its employees, because a number of people with such relationships as reported by pharmaceutical companies had not disclosed those relationships to NIH administrators. In addition, the severity of some of the conflicts was noteworthy. The embarrassed NIH administrator (McManus, 2004) proposed new, far-reaching, and stringent supplemental conflict of interest rules on February 3, 2005. A lobbying and public communications initiative on behalf of disgruntled scientists at NIH (the Assembly of Scientists) by a law firm that also represents BIO appears to have been at least partially successful in leading to a more circumscribed and relaxed (Willman, 2005) final rule in August 2005 (Supplemental Standards of Ethical Conduct and Financial Disclosure Requirements for Employees of the Department of Health and Human Services, 2005), which is currently being reviewed following surveys of NIH employees and others. A major concern voiced by the Assembly of Scientists and reiterated in the final rule is whether NIH will be able to recruit and retain excellent scientists if conflict of interest rules are rigorous. To date, there does not seem to be evidence of this actually being a problem, although the survey of NIH employees showed that they were worried about this being the case (National Institutes of Health, 2006). Another way to approach that concern is to consider that rather than softening intramural conflict rules, perhaps conflict of interest provisions for extramural research should also be updated and clarified so

that there will not be such a large discrepancy in what is permissible among scientists working with public research funds within NIH and outside in academic settings.

The topic of financial relationships between scientists and industry continues to receive a great deal of attention in both the public and the scientific press and is likely to continue to receive attention in the next session of Congress. A senior scientist who heads the geriatric psychiatry branch of NIH recently admitted in federal court that he improperly failed to disclose payments of $285,000 in fees from a pharmaceutical company (Rich, 2006) for services intertwined with his governmental responsibilities. Another senior researcher at NIH was found, in an internal investigation, to have engaged in serious misconduct by accepting unauthorized fees from 25 pharmaceutical and biotechnology companies and leading government-sponsored research involving drugs from some of those companies (Willman, 2006). All NIH employees have received ethics training since the final rule was established in 2005.

The troubling NIH experience is a reminder that it is preferable to implement thoughtful policies and procedures to prevent, disclose, and manage conflicts of interest before they become a problem. We anticipate that corporate funding will become more of an issue for psychologists in the future for several reasons. The increasing influence of large corporations in daily life, the likelihood of increasing numbers of prescribing psychologists, the aging of the population of the United States, and the potential increase in markets for pharmaceutical products aimed at behavioral and mental health problems are trends that are likely to bring issues of corporate funding closer to the work of psychologists. We hope that the Task Force on External Funding Final Report and this article will stimulate discussion and action. We encourage APA to implement policies across a range of governance areas to promote and protect the integrity of the association and its members. Policies at the association level can provide an example and support for psychologists who grapple with the tensions between funding and the independence or integrity of their own work in their roles as scientists, practitioners, and educators. APA's leadership in this area could also serve as a constructive model to other professional and scientific associations. We look forward to discussion of these issues among psychologists and hope that consideration of the potential difficulties posed by corporate funding and conflicts of interest will be integrated into the education and CE of all psychologists.[5]

[5] As this article goes to press, very recent studies have demonstrated the prevalence and types of financial relationships between physicians and medically related industries (Campbell, Gruen, et al., 2007) and between medical school and large teaching hospital department chairs and medically related industries (Campbell, Weissman, Eringhaus, et al., 2007). A task force of the Association of American Medical Colleges is examining "gifting and favoring" (D. Korn, as quoted in Tanner, 2007, para. 22). In addition, on October 11, 2007, the Institute of Medicine posted a proposed committee for a 24-month study titled "Conflict of Interest in Medical Research, Education, and Practice."

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