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Effects of Conflict-of-Interest Policies in Psychiatry Residency on Antidepressant Prescribing

Editor's note: Concerns about the pharmaceutical industry's influence in academic medical centers and on medical education have led many medical schools and teaching hospitals to adopt conflict-of-interest (COI) policies. Although the restrictiveness of these policies differs, the goal is the same: to shield physicians-in-training from the persuasive aspects of pharmaceutical promotion. But do these policies work? This Issue Brief examines how COI policies affect the prescribing patterns of antidepressants, one of the most heavily promoted drug classes in the past decade. As such, it provides the first empirical evidence of the effects of COI policies in residency on the subsequent prescribing patterns of practicing physicians.

Policies target interactions between physician trainees and pharmaceutical companies

Physicians interact with the pharmaceutical industry throughout their professional lives—from medical school through residency training, and commonly in clinical practice. There is particular concern about industry influence on physician trainees, who are beginning to establish long-term practice patterns. In the past 10 years, a number of guidelines have emerged to structure these interactions.

- In 2002, the Pharmaceutical Research and Manufacturers Association (PhRMA) issued voluntary guidelines for sales representatives that limited the value of gifts to physicians to under \$100, along with other restrictions. At the same time, the American Medical Student Association (AMSA) began a PharmFree Campaign to limit the access and influence of pharmaceutical companies at medical schools and academic medical centers.
- In 2008, the Association of American Medical Colleges (AAMC) developed consensus principles for COI policies, including a prohibition on all gifts to health care professionals. The AAMC guidelines addressed other interactions as well, including meals, pharmaceutical samples, and site access by sales representatives.
- Since 2007, AMSA has issued an annual “PharmFree Scorecard” grading each medical school's COI policy for its content and stringency. This scorecard shows that academic medical centers vary widely in their adoption of COI policies, even after the AAMC guidelines were issued. In 2011-12, 18% of US medical schools received an “A,” 49% a “B,” 10% a “C,” 9% a “D”, and 6% an “F.”

New study looks at how conflict of interest (COI) policies are associated with subsequent prescribing patterns

Although many studies indicate that contact with the pharmaceutical industry can affect physicians' attitudes and prescribing choices, it is unknown whether exposure to COI policies during residency training attenuates that influence after graduation. Epstein and colleagues chose to study one specialty—psychiatry—and one class of drug—antidepressants—to begin to answer that question. Antidepressants have been among the most heavily promoted drug classes, and antidepressant use increased nearly 400% from 1988 to 2008.

- The investigators used national prescribing data for 2009 and compared two cohorts of psychiatrists: those completing residency in 2001 (before COI policy adoption) and those completing residency in 2008 (after COI policy adoption).
- They used data from the 2008 AMSA PharmFree Scorecard and the Institute for Medicine as a Profession (IMAP) to sort the 2008 COI policies of residency programs into three levels of restrictiveness (maximally, moderately, or minimally restrictive). The categorization was based on 10 aspects of each program's policy: gifts, on-site meals, detailing, samples, purchasing and formularies, continuing medical education, consulting, speaking, travel, and industry support for trainees.
- They analyzed the proportions of new prescriptions written by each psychiatrist for antidepressants that were: (1) heavily promoted; (2) brand reformulated (for example, controlled released versions); and (3) brand drugs. They categorized Lexapro and Cymbalta as heavily promoted, because these antidepressants were ranked first and third among all pharmaceuticals by promotional spending in 2009.
- To estimate the effects of exposure to COI policies, the investigators compared the average difference in prescribing during 2009 between psychiatrists who graduated in 2001 and in 2008 from residency programs that adopted maximally, moderately and minimally restrictive COI policies. If COI policies "work" as intended, the prescription patterns of 2008 graduates of the most restrictive programs should vary the most from their 2001 predecessors, compared to the least restrictive programs.

Study analyzes more than 900,000 new prescriptions for antidepressants by psychiatrists

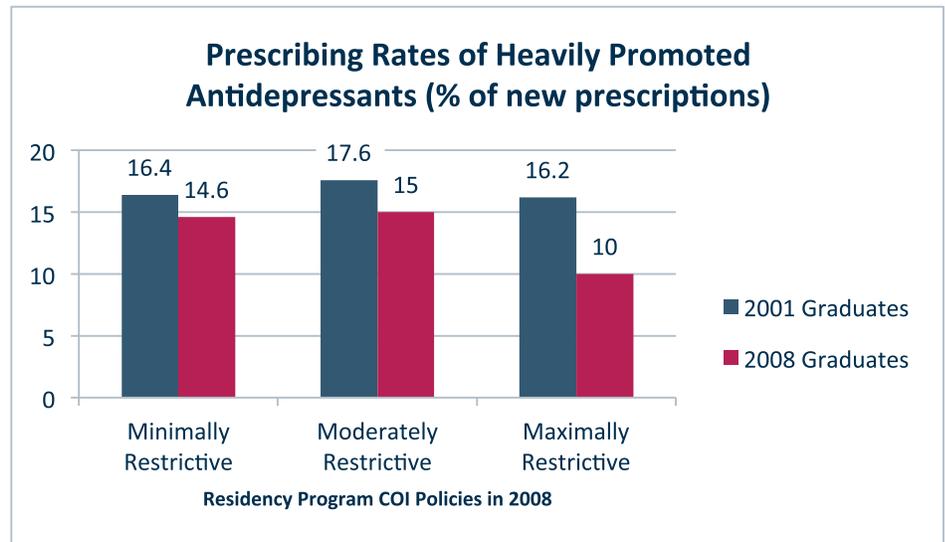
The study included 1,652 psychiatrists, about half of whom graduated in 2001 and half in 2008. They accounted for 901,805 new dispensed prescriptions for antidepressants in 2009.

- The psychiatrists graduated from 162 residency programs. Categorized by their program's 2008 COI policy, about 30% graduated from the minimally restrictive group, 51% from the moderately restrictive group, and 19% from the maximally restrictive group.
 - Overall, the 2008 graduates prescribed far fewer antidepressants than the 2001 graduates, likely because they were in their first year of practice and consequently saw fewer patients.
 - Not surprisingly, the rates of prescribing new dispensed antidepressants among 2001 graduates were not significantly different across residency program groups, since the COI policies were not in place at that time.
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Exposure to restrictive COI policies in residency is associated with changes in prescribing patterns in practice

Rates of prescribing heavily promoted, brand reformulated, and brand antidepressants in 2009 were lower among post-COI graduates at all levels of COI restrictiveness. But the largest differences between pre- and post-COI graduates appeared in the maximally restrictive programs.

- As shown below, relative to the 2001 graduates in the same residency group, 2008 graduates in maximally restrictive programs prescribed heavily marketed antidepressants significantly less often than 2008 graduates of both minimally restrictive programs (4.3 percentage points) and moderately restrictive programs (3.6 percentage points).



- Results were consistent for prescribing of brand reformulations and brand drugs. Relative to the 2001 graduates in the same residency group (who completed their training before their program adopted COI policies), prescribing rates among 2008 graduates in maximally restrictive programs were significantly lower than among 2008 graduates of minimally restrictive programs for both reformulations (3.0 percentage points) and brand antidepressants (4.5 percentage points).
- Results were similar when the analysis included both new and refilled prescriptions for antidepressants.

POLICY IMPLICATIONS

Longstanding concerns have been raised about pharmaceutical industry influence on physicians in general and trainees in particular. This study provides the first empirical evidence about whether COI policies reduce this influence.

- In psychiatry, physicians who were exposed to maximally restrictive COI policies during residency training had lower rates of prescribing heavily marketed antidepressants. Although physician-industry interactions may serve an important informational function, these results offer one piece of evidence that these COI policies have helped inoculate physicians against the persuasive aspects of pharmaceutical promotion.

POLICY IMPLICATIONS

Continued

- Because heavily marketed drugs, reformulated drugs, and brand drugs tend to be more expensive, a shift away from them could help reduce cost growth. However, it will be important to assess how lower costs achieved through stringent COI policies affect treatment effectiveness and quality of care.
- Further research should assess whether these policies have affected other drug classes and physician specialties similarly.

This Issue Brief is based on the following article: A.J. Epstein, S.H. Busch, A.B. Busch, D.A. Asch, C.L. Barry. Does exposure to conflict of interest policies in psychiatry residency affect antidepressant prescribing? Medical Care, e-published ahead of print, November 12, 2012.

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Issue Brief



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