

Patients expect transparency in doctors' relationships with the pharmaceutical industry

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Most doctors interact frequently with the pharmaceutical industry. In the United States, a national survey of 3167 doctors in six specialties found that family practitioners reported meeting with industry representatives most often (16 times a month).¹ The extent of doctor–industry relationships in Australia is less well documented. A survey of general practitioners found that pharmaceutical representatives visited them on average six times a month in 2001.² Another Australian survey reported that 41% of specialists had engaged in industry-sponsored research in the previous 12 months.³

Doctors' interactions with industry create complex relationships, influencing their decision making and prescribing^{4–8} and undermining public trust in the profession.⁹ We have argued that it is in doctors' and industry's best interests that their interactions are openly declared.¹⁰ For years, the relationship between the medical profession and the pharmaceutical industry has been self-regulated by codes of conduct and guidelines.¹¹ Since 1994, the Australian Medical Association has had a position statement that seeks to provide guidelines for these relationships.¹² Increased transparency of doctors' ties with industry is gaining support, with a number of US states having enacted disclosure laws.¹¹

Little is known about the views of patients on doctor–industry relationships. A US study using focus groups of potential research participants found that they wanted to know about financial interests in clinical research.¹³ In a US study of public opinion about doctor disclosure of financial incentives for limiting test ordering, 94.8% of respondents wanted to be told about incentives and 80.5% wanted this information at the time of enrolment in a health plan.¹⁴ However, another US study reported that cancer patients viewed ties with industry as a positive factor, enabling doctors to provide the newest treatments.¹⁵

We aimed to investigate patients' knowledge of and attitudes to family doctors' relationships with industry, and their views on whether and how they would like to know of doctors' potential competing interests.

ABSTRACT

Objective: To seek the views of patients attending general practice about doctors' interactions with the pharmaceutical industry and their wishes for disclosure of this information.

Design, setting and participants: 906 patients attending three general practices in metropolitan Sydney during October–November 2007 completed an 18-item anonymous survey exploring their perceptions of doctors' competing interests.

Results: Most patients (76%) were unaware of any relationship their doctor may have with pharmaceutical companies. Patients wanted to know if their doctor obtained any benefits in cash or kind from the pharmaceutical industry (71%), financial incentives for research participation (69%) or sponsorship to attend conferences (61%). Most agreed that disclosure of competing interests by doctors is important (84%), believing this disclosure would help patients make better informed treatment decisions (78%). Eighty per cent of patients stated that they would have more confidence in their doctor's decisions if interests were fully disclosed, with strong support for verbal disclosure during the consultation (78%).

Conclusions: Patients are currently not aware of their doctors' competing interests but do want to know of doctors' interactions with the pharmaceutical industry, indicating that disclosure of competing interests would improve their confidence in doctors' decisions.

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METHODS

During October–November 2007, we surveyed patients attending three general practices in metropolitan Sydney, New South Wales. One practice was a university health service seeing an average of 100 patients a day, and two were private practices with an average of 30 patients a day. Consent for conducting the study was obtained from the doctors and the practice manager at each site. All patients attending an appointment during a 1–2-week recruitment period at each practice were invited to participate in the study, with the exception of a small proportion of patients (about 5%) who appeared to be too sick to participate.

Patients were either approached in the waiting room by a researcher or invited to participate by the doctor. The purpose of the survey was explained, anonymity and confidentiality of responses were assured, and verbal assent to participate was sought. Patients were instructed to complete the survey with regard to their broad expectations of doctors and not to any particular practitioner. Patients handed the completed survey to the researcher or doctor. The protocol and survey were approved by the

University of Sydney Human Research Ethics Committee.

Survey design

The three-page survey examined patients' awareness of their doctors' competing interests, what type of benefits or incentives they wanted to know about, their views on the importance and method of disclosure, and the effect this would have on their decision making and their confidence in the doctor. The survey consisted of demographic questions, a preamble introducing the survey, and 18 statement-type items with a five-point Likert response scale ranging from "strongly agree" to "strongly disagree".

Two different versions of the survey preamble were distributed to patients. One version highlighted the potential negative impact of conflicts of interest.¹⁶

The pharmaceutical industry's seemingly over-generous sponsorship of educational conferences for doctors, including all-expenses-paid luxury travel and accommodation at times, has come under intense public scrutiny due to significant media coverage of late. On 26 July 2006, the Chairman of the Australian Competition and Consumer

1 Demographic characteristics of respondents

Characteristic	No.*	Proportion [†]	
		Raw	Weighted
Age			
Mean (SD) in years		38.1 (17.8)	51.2 (104.7)
16–24 years	272	30.4%	17.0%
25–44 years	343	38.4%	50.4%
45–64 years	180	20.1%	21.6%
65–95 years	99	11.1%	11.0%
Sex			
Male	288	32.1%	51.5%
Female	610	67.9%	48.5%
Marital status			
Married/de facto	380	43.7%	50.2%
Divorced/separated	48	5.5%	5.1%
Widowed	27	3.1%	2.5%
Single	415	47.7%	42.2%
Highest educational qualification			
Year 10 or below	56	6.7%	5.5%
Year 12	152	18.2%	14.6%
Technical college/apprenticeship	55	6.6%	8.6%
Undergraduate university degree	331	39.6%	38.4%
Postgraduate university degree	241	28.9%	32.9%
Country of birth			
Australia	539	59.8%	59.8%
Other	363	40.2%	40.2%
Is English your first language?			
Yes	685	75.9%	75.9%
No	217	24.1%	24.1%
Have you had any medical or allied health training?			
Yes	174	19.4%	19.1%
No	721	80.6%	80.9%

* Totals may not equal 906 due to a small number of incomplete responses to individual questions.

† Proportions exclude missing responses. ◆

Commission (ACCC) stated: “Consumers should be able to have confidence that decisions made by their doctors are made solely having regard to their best interest without any potential for influence by benefits or perks”. It is important to consider how conflicts of interest can best be prevented, assessed and managed, espe-

cially given the centrality of public trust in doctors. We would therefore like to obtain your feedback on this topic.

The other version presented a neutral, informative preamble:

Pharmaceutical companies often visit doctors to keep them informed about their products. Some doctors receive sponsorship or gratuities from these companies in the form of having their expenses covered to attend educational conferences, free drug samples, or food and meals. We are interested in obtaining your views about doctors' relationships with pharmaceutical/drug companies.

In a pilot study, 223 patients attending a rural NSW practice received the survey containing the ACCC's statement. To determine whether this statement had any impact on patient attitudes, the neutral version of the preamble was developed for this study and both versions were randomly distributed at one of the metropolitan practices. A comparison of responses from participants who completed the surveys with ($n=293$) and without ($n=297$) the ACCC's statement found no significant differences on any of the survey items ($P>0.05$). Therefore, responses to the surveys were examined across the whole sample. The two other participating practices distributed only the neutral version of the survey ($n=316$).

Statistical analyses

Using data from the pilot study, the required sample size was calculated using a proportion estimate of 73% (95% CI, 67%–79%) with an “agree” or “strongly agree” response to our primary variable of interest: “I am not aware of any competing interests my doctor may have with drug companies”. At an allowable error rate of 3%, a confidence level of 95%, and a target population of 196 354 people aged 16–95 years across north and central Sydney (Australian Bureau of Statistics [ABS] 2006 census), we calculated the required sample size to be 838, using the sample size calculator offered on the National Statistical Service website (<http://www.nss.gov.au>).

We used cross-tabulation to examine the proportion of patients' responses in each category for each survey item. Complex surveys in SPSS, version 15.0 (SPSS Inc, Chicago, Ill, USA) were used for all statistical analyses.

Raw data were post-stratified according to the sex and age (16–24, 25–44, 45–64, 65–

95 years) distribution of the target population of 196 354 people, with counts derived from the ABS 2006 census. We examined differences between subgroups, as defined by the participant characteristics using χ^2 tests (likelihood ratio) on the weighted data. To simplify the subgroup analysis, response categories were collapsed into “agree”, “neither agree nor disagree” and “disagree”. Education level was divided into technical college/apprentice qualification or lower versus university degree (including those currently studying). A split-half reliability analysis of the weighted data revealed a Cronbach's α of 0.91.

RESULTS

Of 1129 patients approached, 922 agreed to participate; 16 of these did not have time to complete the survey, leaving 906 who did (80% response rate). Reasons for patients declining to participate were that they were too ill, were unable to read English, or did not have time. Demographic characteristics of the respondents are shown in Box 1.

Patients' awareness of doctors' competing interests, the types of interests they would like to know about, their views on the effect of doctors' competing interests and the form of relevant disclosures are shown in Box 2. Most patients (76%) were unaware of any competing interest their doctor may have with drug companies. About 70% wanted to know if their doctor obtained any benefits in cash or kind or financial incentives for participation in research, and 61% wanted to know if their doctor had been sponsored to attend conferences. Eighty-one per cent were not aware of any benefits or financial incentives their doctor may obtain in respect of prescribing a particular drug treatment; an average of 79% of patients wanted to know about any incentives obtained by the doctor.

When patients were asked whether they believed that doctors are not unduly influenced despite receiving benefits or perks, almost half (49%) agreed, while 27% disagreed and 24% were unsure. Most felt it is important for doctors to disclose any relevant competing interests (84%) and believed that this disclosure would help patients to make better informed treatment decisions (78%). There was strong support for doctors disclosing their competing interests verbally during the consultation (78%). Notably, 80% of patients stated that they would have more confidence in their doctor's decisions if interests were fully disclosed; only 7% disagreed with this statement.

Predictors of attitudes

Respondents who had received some health training were more likely to report being aware of any incentive their doctor may obtain in respect of drug treatments (11% v 5%, $\chi^2 = 13.0$, $P < 0.05$). Patients with English as a first language were twice as likely as patients who spoke another language to believe doctors are unduly influenced by receiving benefits or perks (31% v 16%, $\chi^2 = 24.0$, $P < 0.01$). Younger and more educated respondents wanted to know more about doctors' competing interests.

DISCUSSION

Our results show that patients attending three general practices in Sydney are concerned about the effects of interactions between doctors and the pharmaceutical industry. Most patients were unaware of doctors' competing interests, but agreed that knowing about them would aid in their treatment decision making and that such disclosure would increase their confidence in their doctor's decisions.

Most patients wanted to know if the doctor had received any benefits from interacting with drug companies, particularly for prescribing drugs or enrolling patients in a clinical trial, possibly because patients see these activities as directly affecting themselves. Sponsorship of doctors to attend conferences was of concern to fewer respondents. Although it has been shown that cancer patients in clinical trials retain trust in their personal doctors,¹⁵ our results more likely reflect concerns of the general public.¹⁷ More educated respondents were just as likely to be unaware of the existence of competing interests as those with less education.¹⁵ Younger patients¹⁴ and more educated patients¹⁵ had a less trusting and more inquisitive attitude towards conflicts of interest.

Although nearly half the respondents believed their doctor was not unduly influenced by receipt of benefits or perks from industry, only 11% strongly agreed with this statement, while 27% disagreed or strongly disagreed. Further analysis found that of the patients who believed that doctors were not unduly influenced, 77% felt it was nevertheless important for their doctor to disclose these benefits, 75% believed that this disclosure would help them make better informed treatment decisions, and 73% agreed they would have more confidence in their doctor's decisions with full disclosure.

Across the sample, most patients reported that they would have more confidence in

2 Patients' awareness of and views on doctors' competing interests

Item	Number of respondents (weighted proportion*)				
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I am not aware of any competing interests my doctor may have with drug companies	332 (32%)	513 (44%)	145 (12%)	102 (10%)	33 (2%)
I would like to know if my doctor, via interactions with the pharmaceutical industry, has:					
obtained any benefits in cash or in kind	388 (36%)	405 (35%)	204 (16%)	99 (10%)	27 (2%)
received or is receiving financial incentives for participation in research activities	381 (34%)	399 (35%)	225 (19%)	84 (9%)	34 (3%)
been sponsored for travel, registration or accommodation to attend conferences	327 (31%)	350 (30%)	274 (23%)	135 (13%)	37 (3%)
I am not aware of any indirect benefits/financial incentives my doctor may obtain in respect of a particular course of drug treatment	384 (36%)	519 (45%)	148 (13%)	51 (5%)	21 (1%)
I would like to know if my doctor obtains an indirect benefit/financial incentive for:					
instituting a course of treatment	471 (44%)	433 (36%)	137 (11%)	59 (6%)	24 (3%)
prescribing a drug	507 (47%)	405 (34%)	129 (11%)	58 (5%)	24 (3%)
making a referral	454 (42%)	424 (36%)	157 (13%)	62 (6%)	23 (2%)
doing a test or procedure	456 (42%)	421 (35%)	157 (15%)	61 (6%)	23 (2%)
enrolling patients in a clinical trial	501 (45%)	396 (34%)	142 (12%)	60 (7%)	22 (2%)
It is important to me that my doctor acts solely in my best interest when deciding my care	950 (84%)	153 (14%)	17 (1%)	5 (<1%)	2 (<1%)
I believe that doctors are not unduly influenced despite receiving benefits or perks	125 (11%)	386 (38%)	316 (24%)	246 (23%)	43 (4%)
I feel it is important for my doctor to disclose any relevant competing interests or conflict of interest to me	541 (49%)	418 (35%)	91 (8%)	37 (3%)	21 (2%)
Knowing my doctor's competing interests will help me to make better informed decisions for myself when considering my treatment options	308 (28%)	558 (50%)	192 (17%)	50 (4%)	16 (2%)
I would like my doctor to make the relevant disclosure of interests by:					
verbally informing me during the course of a consultation	446 (38%)	453 (40%)	129 (13%)	68 (7%)	18 (2%)
clearly displaying it on the wall of the consulting room	319 (28%)	433 (39%)	213 (18%)	104 (10%)	34 (4%)
presenting it to me in a printed document	340 (31%)	360 (31%)	261 (24%)	110 (9%)	27 (3%)
I will have more confidence in my doctor's decisions with full disclosure compared with non-disclosure	522 (47%)	401 (33%)	127 (13%)	43 (4%)	23 (3%)

* Percentages may not total 100% due to rounding.

their doctor's decisions with full disclosure of competing interests, and half of all patients strongly held this opinion. This suggests that open disclosure contributes to establishing and maintaining trust within the patient–doctor relationship. A recent randomised trial of disclosing doctors' financial incentives to patients in writing found that patients' trust in their doctors remained unharmed.¹⁸ These results support the open declaration by doctors to patients of their interactions with industry and the benefits they receive.¹⁰ A US study investigated how primary care doctors responded to a video of a "patient" who expressed concern about financial incentives and asked how the doctor was paid.¹⁹ Overall, 36% of the doctors did not give enough information to allow independent determination of how they were paid; nearly every doctor avoided discussing the role of incentives and instead stressed that he or she could be trusted in any circumstance. These findings suggest that doctors may benefit from training on how to verbally disclose their industry links to patients.

Our study has some limitations. Patients were sampled from only three practices in Sydney, limiting the generalisability of our findings. Second, the potential confounder of patients' past exposure to GPs was not addressed. Finally, due to a lack of comparable Australian studies, we have no way of objectively assessing the validity of our survey questions, although a similar pattern of results has been found in international studies.^{14,15}

Does the pharmaceutical industry have any moral responsibility for the consequences of how it markets its products to doctors and patients? In Australia, this responsibility has been acknowledged, with pharmaceutical companies now required to disclose twice-yearly complete information about their gifts to doctors on a freely accessible website.²⁰ However, disclosure requirements, whether of industry marketing practices or doctors' competing interests, are not enough on their own to effectively avoid the possible provision of biased advice to patients. Disclosure of interests may help to obviate doctors of legal responsibility, in effect giving them a moral licence to provide biased advice and putting the patient in the position of caveat emptor.²¹ We believe greater transparency needs to be coupled with stricter oversight of pharmaceutical industry relationships with doctors.²

While sponsoring doctors to attend independent conferences is recognised as facilitating continuing medical education,²² industry marketing practices involving visit-

ing doctors and providing free samples, lunches and holidays is perceived differently by patients. Some US institutions have implemented policy changes designed to limit doctor–industry relationships, such as excluding drug representatives from hospitals, reducing the use of drug samples by doctors, and eliminating industry-sponsored lunches.²³ A recent media report notes that the Cleveland Clinic in the US plans to disclose all of its doctors' and scientists' financial ties with pharmaceutical companies on its website.²⁴

Disclosure by industry and individual doctors is only one step towards correcting bias, and pharmaceutical marketing tactics need to be reviewed to reduce the influence of industry interactions on prescribing behaviour. We recommend that future studies examine the generalisability of our findings and determine the consequences that may flow from disclosure.

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COMPETING INTERESTS

None identified.

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