Attitudes of ophthalmologists towards pharmaceutical promotion

Attitude des médecins ophtalmologistes vis à vis de la promotion pharmaceutique

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Abstract

Background: The interaction between physicians and pharmaceutical industry highlighted many issues lately concerning their influence on physician's attitude and their prescribing behavior.
Aim: To evaluate the attitudes of Tunisian ophthalmologist towards pharmaceutical promotion.
Methods: Data was collected through an auto-administered anonymous questionnaire elaborated in French that was distributed to 160 ophthalmologists (residents and specialists) working in hospitals or private practices in four Tunisian governorates (Tunis, Sousse, Monastir and Sfax).
Results: One hundred and two valid responses were received. Twenty-nine respondents (28.43%) estimated the number of visits by pharmaceutical representatives (PR) at 11 to 20 times during the last year. Most physicians considered guides (94%), drug samples (88%), articles (86%), stationery (81%), sponsorship of overseas conferences (72%) and international trips to symposia organized by pharmaceutical industries (58%), as appropriate gifts. Over 80% of doctors agreed that promotional activities by drug companies were appropriate. Accepting sponsorship from a pharmaceutical company for a partner to attend a meeting was considered inappropriate by 79% of ophthalmologists. Eighty-eight percent of the respondents agreed that receiving gifts will increase their prescription of the company's drug. However, they perceived themselves to be less influenced than their colleagues (p=0.011). Eighty-six percent of ophthalmologists reported training about how to interact with PR to be insufficient.
Conclusions: Despite the role of PR in supporting research, ethical issues may arise through their interactions with healthcare professionals. Training about pharmaceutical promotion and appropriate ways to deal with it are lacking in Tunisian medical schools' curricula, leaving future doctors unprepared to deal with pharmaceutical influences.

Key words: Attitude, Physicians, Laboratories, Drugs, Conflict of interest

Résumé

Introduction: L'interaction entre les médecins et l'industrie pharmaceutique a soulevé de nombreux problèmes récemment concernant leur influence sur l'attitude et la prescription de ces deniers.
Objectif: Évaluer les attitudes des ophtalmologistes tunisiens à l'égard de la promotion pharmaceutique.
Méthodes: Les données ont été recueillies à l'aide d'un questionnaire anonyme auto-administré élaboré en français et distribué à 160 ophtalmologistes (résidents et spécialistes) travaillant dans des hôpitaux ou des cabinets privés dans quatre gouvernorats tunisiens (Tunis, Sousse, Monastir et Sfax).
Résultats: Cent deux réponses valides ont été analysées. Vingt-neuf répondants (28,43%) ont estimé le nombre de visites de représentants pharmaceutiques (RP) entre 11 et 20 fois au cours de la dernière année. La plupart des médecins considèrent les guides (94%), les échantillons de médicaments (88%), les articles (86%), la papeterie (81%), le parrainage de conférences à l'étranger (72%) et les voyages internationaux à des symposiums organisés par les industries pharmaceutiques (58%), comme des cadeaux appropriés. Plus de 80 % des médecins reconnaissent que les activités promotionnelles des entreprises pharmaceutiques sont appropriées. Accepter le parrainage d'une société pharmaceutique pour la prise en charge du conjoint était considérée comme inapproprié par 79 % des ophtalmologues. Quatre-vingt-huit pour cent des personnes interrogées reconnaissent que le fait de recevoir des cadeaux des RP les incitera à prescrire davantage de médicaments de la firme pharmaceutique en question. Cependant, ils se considèrent moins influencés que leurs collègues (p=0,011). Quatre-vingt-six pour cent des ophtalmologues ont déclaré que la formation sur la manière d'interagir avec les relations publiques était insuffisante.
Conclusions: Malgré le rôle des RP dans la promotion de la recherche médicale, des questions éthiques vis-à-vis des interactions avec les professionnels de la santé peuvent être soulevées. La formation sur la promotion pharmaceutique et les moyens appropriés pour y faire face font défaut dans les programmes des écoles de médecine tunisiennes, ce qui laisse les futurs médecins sans préparation pour faire face aux influences pharmaceutiques.

Mots clés: Attitude, Médecins, Laboratoires, Médicaments, Conflit d'intérêts

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INTRODUCTION

Pharmaceutical expenditures on marketing outweigh those on research and development. In 2015, out of the top 100 pharmaceutical companies by sales, 64 spent twice as much on marketing than on research and development and 27 spent 10 times the amount [1]. The interactions between pharmaceutical representatives (PR) and physicians start as early as medical school. Baskir et al revealed that 52% of first-year medical students had previous interactions with PR [2]. These encounters are being increasingly scrutinized within the medical field and by the public. Our aim was to report the characteristics of this relationship in Tunisia, and the attitudes and opinions of ophthalmologists towards pharmaceutical promotion (PP) and the existence of potential ethical dilemmas in the strategies used by PR.

METHODS

Study design

Cross-sectional survey was conducted between January 03, 2021 and June 30, 2021. A paper-and-pencil anonymous questionnaire, adapted from previous literature was elaborated in French [3]. A pre-test on five volunteers was conducted to assess comprehensibility and reorganize the questions to avoid question order bias. We included ophthalmologists (residents and specialists) working in hospitals or private practices from four Tunisian governorates (Tunis, Sousse, Monastir and Sfax). Incomplete questionnaires were excluded. The paper-and-pencil questionnaire was distributed to ophthalmologists in the prementioned governorates. The questions did not include data that could directly identify the participant.

The final questionnaire had three sections: (1) Respondent's demographic and professional profile. (2) Ophthalmologists' attitudes towards their relationships with PR. (3) Ophthalmologists' evaluation of training about PP.

Data confidentiality was respected throughout the study.

Statistical analysis

Data analysis was performed using SPSS software 25.0. Comparisons were conducted between residents and specialists. Differences were calculated by Student's t-test in continuous variables and Chi-square or Fisher exact tests in categorical variables. Comparisons of two percentages on paired nominal data were carried out using the Mac Nemar test or using the properties of binomial distribution, $p < 0.05$ was considered statistically significant in all tests.

RESULTS

The questionnaire was distributed to 160 ophthalmologists and 102 valid responses were received, which represented a 63.75% response rate. Fifty-five (53.92%) of the 102 physicians were women. Seventy were ophthalmology residents and 32 were specialists (19 working in private practices and 13 in public hospitals). The median age was 29 years in the group of residents and 36 years in the group of specialists. Socio-demographic characteristics are summarized in Table 1. The number of visits per year by PR was estimated at 11 to 20 times, and more than 20 times by 29.41% (n=30 divided in 21 residents and 9 physicians) and 22.54% (n=23 divided in 16 residents and 7 physicians) of respondents respectively. No statistically significant difference was noted concerning the annual number of visits by PR between residents and physicians. Drug samples and prescription guides were received more than 5 times by 42% and 45% respectively. Scientific articles and textbooks were not received in 41% of cases.

Table 1. Characteristics of the study population

	Residents (n=70)	Specialists (n=32)
Age (years)		
Median	29	36
Range	25-36	31-64
Gender [N (%)]		
Female	36 (51.43)	19 (59.38)
Male	34 (48.57)	13 (40.62)
Sex ratio (M/F)	0.94	0.68

Most physicians considered guides (94%), drug samples (88%), articles (86%) and stationery (81%) as appropriate gifts. Sponsorship of overseas conferences was considered appropriate or very appropriate by 72% of participants followed by international trips to pharmaceutical symposiums (58%). Informational luncheons and social events, offered at least 2 times in the last year to 25% of respondents, were considered appropriate or very appropriate by 49% of participants. Over 80% of doctors agreed that promotional visits and symposiums were appropriate or very appropriate. Only 3% considered them very inappropriate. Accepting sponsorship from a pharmaceutical company for a partner to attend a meeting was considered inappropriate or very inappropriate by 79% of ophthalmologists.

The majority of residents (61%) and specialists (47%) disagreed that interactions between physicians and PR could benefit the patients. But 31% of specialists were neutral about this statement. Eighty-eight percent agreed that receiving gifts will increase their prescription of the company's products and 12% disagreed. However, the participants perceived themselves to be less influenced than their colleagues (p=0.011).

Most doctors (65%) stated that they would not be embarrassed if their patients knew about the gifts they received. And 70% of physicians disagreed or strongly disagreed with the prohibition of meeting PR, while 21% were neutral about this matter.

Comparison between residents and specialists revealed that specialists received more frequently inexpensive gifts (p=0.02) and the sponsorship of overseas conferences (p=0.006) than residents. Teaching about how to interact with PR and possible conflicts of interest was reported to be insufficient or non-existent by 86% of ophthalmologists.

DISCUSSION

The pharmaceutical industry invests a large sum of money in drug promotion. In 2015, the US pharmaceutical industry spent about 20.4 billion US dollars for detailing and direct marketing [4]. The consequences of interactions between physicians and PR have become an increasingly controversial issue in the medical community and the general population. In our study, we aimed to assess the attitudes of ophthalmologists towards PP in four Tunisian governorates. Most participants (70%) were against banning the interactions between physicians and PR. This was consistent with other studies in which physicians had a positive attitude towards PR and believed that they should not be prohibited from meeting them [5,6].

Twenty-two (21.57%) respondents reported more than 20 visits during the last year.

The data about PR's visits remains controversial. Wang's study showed that 87% of ophthalmology residents reported seeing PR at least once every 1 to 2 months [7].
In our study, all gifts were considered appropriate. Only accepting sponsorship for a partner to attend a meeting was considered inappropriate. Physicians' attitudes towards gifts from PR differ in the literature. In a systematic review by Fickweiler et al, conference registration fees, informational luncheons, sponsorship of departmental journal clubs, anatomical models and drug samples were considered appropriate gifts [5]. Similar results were reported in an Ethiopian cross-sectional study [8]. However, in Alosaimi et al's study, only a small percentage (16.3%) of participants thought it was ethical to accept pharmaceutical company gifts and 43.6% agreed that PR should be banned from giving gifts [9].
In our survey, most doctors (65%) stated that they would not be embarrassed if their patients knew about the gifts, they received contrary to another study, in which physicians did not want gift acceptance made public [10].
Contradictions were identified among our participants. The survey indicated that they generally viewed interactions with PR as professionally appropriate. Yet, the majority of residents (61%) and specialists (47%) disagreed that these interactions could benefit the patients.
Eighty-eight percent of the respondents agreed that receiving gifts will increase their prescription of the company's products. In a systematic review, Brax et al revealed that out of 19 studies, 15 found a consistent association between drug promotion and inappropriately increased prescribing rates, lower prescribing quality and increased prescription costs [11].
The respondents perceived themselves to be less influenced than their colleagues. This finding was comparable to what has been reported in the literature [9, 12, 13, 14]. This can be attributed to the illusion of « unique invulnerability » [14].
In the ophthalmology field, a study conducted by Taylor et al about the association between industry payments and physician-prescribing habits of anti–vascular endothelial growth factor intravitreal injections were unable to prove a causal relationship, but their analysis revealed a positive association between pharmaceutical payments and use of aflibercept and ranibizumab [15].
The increase in the number of prescriptions can be attributed to a need the physician feels to reciprocate. Pharmaceutical representatives tend to establish long-term, reciprocal relationships with physicians which will influence their prescription habits [16].
It is important to emphasize that many psychological processes used by PR influence physicians' attitudes below conscious awareness. An example of this unconscious decision-making can be represented by the fact that physicians often feel pressed for time and tend to prescribe the first drug that comes to mind [14].
Eighty-six percent of ophthalmologists reported insufficient or non-existent training about PP. However, the Ethics Committee of the Faculty of Medicine of Tunis is making efforts towards the promotion of ethics. Their initiatives included the organization of ethics immersion courses for first-year medical students and workshops for teachers, as well as the elaboration of a « conflicts of interest acknowledgement and disclosure form », in order to promote transparency among physicians. A global study conducted on pharmacy and medical schools revealed that education on PP was included within the required curricula of most faculties. But usually, students had less than a day's worth of education about this topic. They also found that medical students generally tended to spend less time in education about drug promotion than pharmacy students [17].
Baskir et al, reported the impact of an active learning curriculum they developed for first-year medical students on their attitudes towards PP. The number of students who strongly agreed that PR provide biased information increased from 37% to 65% after the session ($p<0.001$) as well as the perception of the amount of influence pharmaceutical marketing has on prescribing decisions ($p=0.011$) [2].
Regulation of PR's interactions with physicians, and disclosure of these interactions are essential to maintain these encounters within the limits of ethical behavior. Some policy options and guidelines have been proposed in the literature [18, 19].
Limitations of our study included the limited sample size due to a restriction of in-person distribution of the questionnaires because of the COVID-19 pandemic, and the fact that the study was conducted in only four Tunisian governorates. Another limitation was a social desirability bias that could not be completely disregarded despite the anonymity of the questionnaire. Respondents' motivation to maintain a positive self-image may have led to a tendency to underreport socially "undesirable" attitudes towards pharmaceutical promotion.

CONCLUSIONS

This study could serve as a springboard for national surveys which results could be used to develop funding proposals that would focus on educational programs for doctors in training, and the implementation of guidelines for physician-industry interactions to limit the negative consequences of potential conflicts of interest.

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