

## ORIGINAL ARTICLE

## PHARMACISTS' VIEW OF DRUG PROMOTION BY SALES REPRESENTATIVES: A SURVEY FROM INDONESIA

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## ABSTRACT

Interactions between pharmaceutical representatives and pharmacists are increasing. This study aimed to evaluate pharmacists' views towards the drug promotion conducted by sales representatives in Indonesia. Adopting a cross-sectional survey study design, pharmacists completed questionnaires (n=120) to examine attitudes toward drug promotion by sales representatives, perception of the impact of drug promotion on attitudes and knowledge, and their experience in training in dealing with sales representatives and drug promotion. A total of 120 pharmacists participated in the study, of these; the majority of the respondents were females (80.83%) and aged 30-45 years (45.00%). Most respondents (55.83%) had experience in practice collaboration with doctors. However, only a small number of respondents (25.83%) were trained in drug promotion ethics. Approximately 71.67% of pharmacists do not agree with pharmaceutical company support of conferences and speakers, and the majority of respondents (73.33%) do not agree on the appropriateness of gifts provided by pharmaceutical companies. The majority of respondents believe that discussions with sales representatives impact prescribing (76.67%) and receiving gifts influences prescribing (72.50%). We found that majority of pharmacists accept promotion as a source of drug promotion and promotion as a source of information for the introduction of new medicines. Teaching the ethics or effects of drug company promotion has been never taught in pharmacy education. It is recommended that the structured curriculum of pharmacy education include courses/discussion groups on the ethical relationship between pharmacists and pharmaceutical companies.

**Keywords:** Drug promotion; pharmacists; sales representatives.

## INTRODUCTION

In the 1800s the main concerns of both pharmacists and the industry were to provide pure and standardized medicines. Over time, however, the role of pharmacists changed, primarily in the provision of clinical services. Medical decision-making roles have changed the relationship with the pharmaceutical industry and raised new challenges<sup>1-3</sup>. The pharmaceutical industry is essential to the discovery of medicines and the education of health care practitioners. It is heavily involved in supporting health care practitioners by doing drug promotion. Drug promotion applies to all knowledge and persuasive actions by manufacturers and distributors, eventually contributing to the provision, purchase, and use of drugs<sup>4</sup>.

Drug promotion has been recommended to give healthcare practitioners access to the knowledge they need about medications and to administer and use drugs for the safety and benefit of patients. A convenient and regular source of information for healthcare professionals can be promotional events and resources, including pamphlets and educational seminars. Studies have shown that medical students and medical residents may find that, because of their busy

lifestyles, they benefit from the convenience of informative promotional events and materials. Pharmacists and pharmacy residents may see similar benefits<sup>5, 6</sup>.

Pharmaceutical marketing could be a crucial communication route for continuing education on pharmaceutical goods as well as exposing consumers to medical knowledge<sup>3,5</sup>. Furthermore, advertising can hasten the uptake of new drugs that are modest improvements over previous procedures<sup>4,5</sup>. Pharmaceutical marketing, on the other hand, has been criticized as wasteful and excessive, contributing to prescription overuse, misuse, and illogical prescribing and dispensing.

From an ethical point of view, contact and interactions between pharmaceutical firms and physicians/pharmacists concerning drug promotion and marketing have recently become the subject of attention. These experiences are pervasive, frequently dominant, and beneficial to the patient, but they may have some unintended implications<sup>7</sup>. There are questions about whether drug marketing encourages physicians to prescribe particular medications, whether it pushes pharmacists to dispense costly medications when, in some situations, less expensive drugs might be better, and if it

contributes to the improper clinical use of certain medicines<sup>8</sup>. In addition, some of the information presented to physicians by sales representatives may be inaccurate.

Research on interactions between pharmacists and the industry is less common than research on interactions between physicians and the industry. However, interactions between pharmaceutical representatives and pharmacists are increasing. Previous research has shown that doctors/pharmacists who accept gifts are more beneficial to the business and are more likely to prescribe/dispense the drugs of the company<sup>9-11</sup>. Pharmacists also become clinical specialists, drug information pharmacists, pharmacy and therapeutics committee members, clinical coordinators, and directors. Therefore, training pharmacists may demonstrate their impact on medication selection, thus influencing drug therapy decisions for many patients.

This study aimed to evaluate pharmacists' views towards the drug promotion conducted by sales representatives in Indonesia, including attitudes toward drug promotion by sales representatives, perception of the impact of drug promotion on attitudes and knowledge, and their experience in training in dealing with sales representatives and drug promotion.

## METHODS

The design was a cross-sectional survey. The study protocol adopted Gadjah Mada Medical and Health Research Ethics Committee's ethical guidelines. The survey was conducted in five big cities in Indonesia (Yogyakarta, Surabaya, Semarang, Bandung, Banten) including 10 public hospitals, and 110 pharmacies from July-September 2020, including pharmacists from all specialties. One pharmacist represents one study setting. A convenience sampling technique was chosen for the study. Approximately 200 questionnaires were distributed, which culminated in a 60% response rate.

An electronically self-administered questionnaire was used. Results were anonymous, all questions are mandatory. The survey was completed with 3 times of reminders sent out. The questionnaire was developed from a literature review and has been validated and piloted by non-sample pharmacists. Pharmacists were asked about 3 topics related to drug promotion, namely: (1) demographic information about the pharmacist (age, gender, education, and experience in drug promotion training, experience in practice collaboration with the doctor, and trained about drug promotion ethics); (2) attitudes towards sales representatives promoting drugs on 7 items; (3) perceptions of the effect of drug promotion on attitudes and awareness assessed

as a 4-point agreement. The degree of agreement was decided by combining and contrasting those who replied "strongly disagree and disagree" and those who "agree and strongly agree". Positive direction response was combined into one category (strongly agree and agree), to simplify the data presentation. Statistical software 21 version (SPSS Inc., Chicago, USA) was used. Descriptive statistics were used to present the proportions of each category<sup>12</sup>.

## RESULTS

A total of 120 pharmacists participated in the study, of these, the majority of the respondents were females (80.83%) and the rest (19.17%) were males. The age of respondents ranged primarily between the ages of 30-and 45 (45%). The majority of respondents' level of education was a pharmacist's degree (81.67%) and only 18.33% of the respondents had a Master's. The largest proportion of the respondents has work experience of 5-10 years. Most respondents (55.83%) had experience in practice collaboration with doctors. However, only a small number of respondents (25.83%) were trained in drug promotion ethics.

The attitudes of pharmacists to drug promotion by sales representatives are shown in Table 2. Approximately 62.50% of pharmacists disagree and strongly disagree about having enough training to deal with sales representatives. The majority of respondents (70%) believe that sales representatives do not have a valuable role in medical education and 65% disagree and strongly disagree with the high quality of the information provided. About 71.67% of pharmacists do not agree with pharmaceutical company support of conferences and speakers, and the majority of respondents (73.33%) do not agree on the appropriateness of gifts provided by a pharmaceutical company. The majority of respondents believe that discussions with sales representatives impact prescribing (76.67%) and receiving gifts influences prescribing (72.50%).

The perception of pharmacists about the impact of drug promotion on attitudes and knowledge is presented in Table 3. The majority of respondents accept that promotion is a source of drug promotion (71.67%) and promotion as a source of information for the introduction of new medicines (65.83%). However, only 46.67% of respondents received any teaching on the ethics or effects of drug company promotion in their previous studies, and only 37.50% of respondents received any teaching on how to handle or interpret drug promotional material.

**Table 1. Practicing pharmacists' characteristics (n=120)**

Characteristics	N	%
<b>Gender</b>		
Female	97	80.83
Male	23	19.17
<b>Age</b>		
<30	23	19.17
30-45	54	45.00
45-50	37	30.83
>50	6	5.00
<b>Education</b>		
Pharmacist degree	98	81.67
Master's degree	22	18.33
<b>Working experience</b>		
<5 years	48	40.00
5-10 years	57	47.50
>10 years	15	12.50
<b>Experienced in practice collaboration with a doctor</b>		
Yes	67	55.83
Not yet	53	44.17
<b>Trained about drug promotion ethics</b>		
Yes	31	25.83
Not yet	89	74.17

**Table 2. Pharmacists' attitudes toward drug promotion by sales representatives**

Pharmacists' attitudes toward drug promotion by sales representatives	Strongly agree and agree	%	Disagree and strongly disagree	%
Do pharmacists think they have enough training to deal with sales representatives?	45	37.50	75	62.50
Do pharmacists think that sales representatives have a valuable role in medical education?	36	30.00	84	70.00
Do pharmacists think the information provided is high quality?	42	35.00	78	65.00
Do pharmacists think that pharmaceutical companies support conferences and speakers?	34	28.33	86	71.67
Do pharmacists view promotional gifts are appropriate?	32	26.67	88	73.33
Do pharmacists feel that discussions with sales representatives affect prescribing?	92	76.67	28	23.33
Do pharmacists feel that accepting gifts influences prescribing?	87	72.50	33	27.50

**Table 3. Pharmacists' perception of the impact of drug promotion on attitudes and knowledge**

What impact does drug promotion have on attitudes and knowledge	Strongly agree and agree	%	Disagree and strongly disagree	%
Promotion as a source of drug information	86	71.67	34	28.33
Promotion as a source of information in adopting new medicines	79	65.83	41	34.17
<b>Training about drug promotion materials</b>				
Have you received any teaching in your previous studies about the ethics or effects of drug company promotion	56	46.67	64	53.33
Have you ever received any teaching in your previous studies about how to handle or interpret drug promotional material	45	37.50	75	62.50

## DISCUSSION

There should be no ignoring or overlooking the effect of pharmaceutical promotion on medicines prescription and dispensing. It is of utmost importance to plan and educate medical professionals who deal with drugs by preparing and following up on ethical standards for the marketing of drugs<sup>4</sup>. In the United States, drug industries use gifts for marketing campaigns from doctors<sup>13</sup>. In Saudi Arabia, only one study examined the variability in acceptance of various kinds of donations by the skilled clinician and occupational rank among doctors<sup>14</sup>. However, there is very little knowledge of the relationship between pharmacy and pharmaceutical industries in Indonesia which makes our study important.

According to our research, about 71.67 percent of pharmacists disagree with the pharmaceutical industry's sponsorship of conferences and speakers, and the majority of respondents (73.33 percent) disagree with the propriety of pharmaceutical company gifts. The majority of respondents (76.67 percent) feel that interactions with salespeople have an impact on prescribing and that receiving presents has an impact on prescribing (72.50 percent). In a Our study highlight that the majority of pharmacists accept promotion as a source of drug promotion and promotion as a source of information for the introduction of new medicines (71.67%). The industry should aim to provide representatives with a health care background to interface with pharmacists<sup>15,16</sup>. While over half of the pharmacists suggested that most of the industry's clinical trial findings are trustworthy, fifty-five percent of them thought that higher expectations be kept for clinical trials from academic medical centers<sup>17</sup>.

In a study by pharmacists serving on Pennsylvania's pharmacists and therapeutics commissions, seventy-five percent of pharmacy professionals reported being unhappy with drug industry marketing in general and with drug information in particular<sup>18</sup>. Pharmacists shall maintain acceptable and ethical relationships with the pharmaceutical industry and their sales representatives. In recent years, the activities of sales representatives have been tracked. Two-thirds of respondents claimed that pharmacists had gifts from sales representatives that had little to do with patient care<sup>19</sup>. The pharmacists expressed concern that conflicts of interest and industrial preference could influence formulary decisions<sup>18</sup>.

Information on the attitude and actions of pharmacists towards drug promotion must be collected as it offers insight into where effective strategies are needed. Sales representatives and other commercial sources of information on drugs have not been treated as credible

report, drug company-pharmacist interactions training influenced the perceived impact that pharmaceutical promotion has on pharmacy residents' professional behavior. Residents who had experience were more likely to dispute that knowledge gained from pharmaceutical events or materials affects their clinical recommendations ( $p = 0.006$ ). It was also more common for residents who had undergone training to identify non-educational gifts as unacceptable ( $p=0.003$ )<sup>9</sup>. Since there are low levels of formal training about industry experiences, it may be important to further educate pharmacy students. Training on appropriate interactions between pharmacists and industry and the introduction of policies specifying suitable interactions should be discussed as a way of reducing the impact of promotion on professional conduct. Since a professional pharmacy degree can serve as the basis for pharmacy practice, educational intervention about these experiences may occur. An educational training session in lecture or discussion format may include (1) an overview of professional organizations' interaction guidelines, (2) an overview of pharmaceutical industry marketing strategies, and (3) a literature review summarizing the findings of previous research on industry-health professional interactions.

information sources by a pharmacist, but they are still the most common source of information for drugs<sup>20</sup>. In a systematic review of 58 studies dealing with the topic of drug marketing and its impact on prescribing behavior; the review concluded that exposure to industry promotional information was related to higher prescribing frequency, prescribing costs, lower prescribing efficiency, or no connection at all. As no substantial gain from promotional activities was seen, the recommendation was to restrict promotion as it could potentially reduce the contact time between doctor and patient as well as indirectly lead to more costly drugs for drug promotion expenditure recovery<sup>21</sup>.

Of the 85 percent of pharmacists visited by sales representatives, 87 percent classified representatives' information as relevant and important<sup>22</sup>. The industry should also aim to enhance relationships between sales representatives and pharmacists. Fifty-eight percent of respondents accepted that pharmaceutical sales representatives provide useful information on medications, but more than two-thirds thought that providing pharmaceutical sales representatives who are also healthcare professionals would be more important<sup>19</sup>. In addition, more pharmacists may engage in clinical trials to obtain first-hand experience in the field of drug production<sup>15</sup>.

To achieve productive partnerships and impact progress, transparent and truthful contact with the pharmaceutical industry is important. We encourage more research to recognize areas of

consensus between pharmacists and the pharmaceutical industry as well as areas of disagreement that need resolution. Pharmacists are encouraged to maintain channels of contact with the industry, with patients eventually benefiting.

Our study was subject to several limitations. Due to the sensitivity of the problem (due to ethical considerations) and/or social desirability bias, respondents may not disclose their true responses to some of the questions. Due to the sensitivity of the matter, the pharmacist response rate was relatively low. Because pharmacists did not have time to complete the questionnaire, the survey was done using an interview questionnaire to ease data collection. Another limitation of the current study was the sample size, as many of the contacted pharmacists were hesitant to participate owing to concerns about the COVID-19 epidemic, which was widespread throughout the time period of the study. This could make it difficult to draw broad conclusions and extrapolate to other parts of the country. Nonetheless, the study revealed important new findings that exceed its limitations.

Based on the results here, it is recommended that the structured curriculum of both pharmacy and medicine includes courses/discussion groups on the ethical relationship between health practitioners and pharmaceutical companies. Furthermore, as part of continuing medical / pharmacy education, doctors and pharmacists after graduation should be revised to improve the capacity of health professionals to behave in the best interests of patients.

## CONCLUSION

We found that majority of pharmacists accept promotion as a source of drug promotion and promotion as a source of information for the introduction of new medicines. Teaching the ethics or effects of drug company promotion has been never taught in pharmacy education. It is recommended that the structured curriculum of pharmacy education include courses/discussion groups on the ethical relationship between pharmacists and pharmaceutical companies.

## Conflict of interest

The authors declare no potential conflict of interest.

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