

## ISSUES ABOUT PROMOTING DRUGS IN ROMANIA. OPINIONS OF THE PHARMACEUTICAL REPRESENTATIVES

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### Abstract

Promoting drugs in Romania is related to a number of factors depending on the pharmaceutical companies' rules, the representatives' practices and the changing health policies over the years. The aim of the study was identifying pharmaceutical representatives' opinion regarding drug promoting. We used 70 medical representatives (reps) who answered a survey about different issues regarding drug promoting. Variables like age, work environment, length of employment or type of studies (medical/nonmedical) have been taken into consideration. Data were processed using SPSS software 17.0. 91% of reps claimed that their employing company has an official ethical code of drug promotion. 15% of them declared they often/almost always offered sponsorships to doctors, on first place being sponsorships for the purpose of continuing medical education. Drug promoting is influenced by some factors including pharmaceutical company's rules, the relationship with doctors and pharmacists or personal way of relation to all stakeholders.

### Rezumat

Promovarea medicamentelor în România depinde de o serie de factori, precum regulile companiilor farmaceutice, practicile reprezentanților sau politicile de sănătate mereu în schimbare. Scopul studiului a fost identificarea opiniilor reprezentanților cu privire la practicile de promovare a medicamentelor. 70 de reprezentanți medicali au răspuns la un chestionar referitor la promovarea medicamentelor. Variabile precum vârsta, mediul de activitate, vechimea sau tipul de studii (medicale, nemedicale) au fost luate în considerare. Datele au fost prelucrate cu programul SPSS 17.0. 91% dintre subiecți susțin că există un cod etic oficial de promovare al companiei. 15% dintre ei declară că oferă adesea/întotdeauna sponsorizări medicilor, pe primul loc fiind cele cu scopul educației medicale continue. Promovarea medicamentelor este influențată de o serie de factori printre care regulile companiilor farmaceutice, relația reprezentanților cu medicii și farmaciștii sau modalitățile personale de promovare.

**Keywords:** promoting, drug, pharmacist, doctor, pharmaceutical representative

### Introduction

Pharmaceutical companies are spending a large amount of money on drugs promotion. Compared to the sums spent on research and development, this amount of money seems to be more important [8]. In United States for example, almost 33% of the money was spent for marketing in 2001 [2] and three years later, in 2004, statistical data reported 24.5% [11]. In 2005 the pharmaceutical industry spent nearly \$30 billion dollars on marketing and promotion, of which 84% went toward physician detailing and free samples [10].

A lot of studies proved that drug promotion is causing higher prescribing of promoted drugs, higher costs and lower quality of prescribing. Most of them are showing that the information presented by the reps to doctors is inappropriate or incomplete

and correlates the frequency of reps visits with an increasing drug prescribing [1, 9, 11-13].

Studies, aimed to identify the impact of prescription drugs on patient health, have identified that the doctor-pharmaceutical representative relationship has consequences on patients' health (a certain type of drug is going to be prescribed and a certain amount of it, depending on the rep and doctor understanding). On the other hand, we must consider that promotion of a drug to physicians make them to prescribe a treatment just because they are knowingly and because they receive proper information directly from the pharmaceutical representatives. This information may be considered valuable, because is punctual and targets the questions addressed directly by doctors needing to be informed about a specific characteristic of the drug. But the price of products promoting must be

reflected in the final cost of the drug, so the dilemmatic issues never end.

The statistical data of the last 5 years regarding the pharmaceutical market in the world proves a continuing increasing of the profit. Different strategies are adopted by the companies in order to achieve their goals [5]. For that, different stakeholders are involved and the patient himself is targeted. Different studies proved that an increasing number of visits to the doctors correlate with an increasing number of prescriptions. The aging of the population accompanied by a higher rate of chronically disease and supported health policies (see the European Union issued Motion for the third program of EU action on health (2014-2020) *Health for Growth*) [7] are supporting the patient's healthcare and the drug selling. So, European policies regarding the health are also encouraging different strategies that can assure a healthy aging society; generic drugs, producing medicines for rare disease, off-label drug use or online shopping are contributing to that.

Many researches were focused on the pharmaceutical market in Romania but only a few investigated the issue of drugs promoting in Romania. All financial analysis proved the pharmaceutical industry, despite the difficulties caused by the economic crisis or by the newest legislation in the country, reported profits [3, 4, 5, 6]. So, the need for drugs still exists, it is the pharmaceutical company's task to find ways to push the need for a specific drug.

The study aims at identifying various ethical aspects in the field of the pharmaceutical representative profession, especially aspects related to drug promotion practices. The objectives of the study were the following:

- demarcating the dimensions which define practices of drug promotion by pharmaceutical representatives;
- pharmaceutical representatives' self-perception regarding drug promotion practices;
- comparative analysis of results based on the following demographic variables of the group of subjects: age, gender (male/female), geographical region of work (North, South, East), work environment (urban/rural/both), type of education (medical/non-medical);
- establishing correlations between survey variables and the subjects' length of employment and age.

The independent variables (age, length of employment, gender, category, affiliation with teaching activity) influence the dependent variables taken into account:

- the existence of an ethical drug promotion code of the employing company;

- features of the information provided by the pharmaceutical representative about the promoted products (accurate, sufficiently comprehensive, balanced by comparison with the competition);

- accuracy of the studies used by pharmaceutical representatives to support their promoted products.

### Materials and Methods

A total of 150 surveys were distributed to representatives of various pharmaceutical companies from several Romanian counties to identify some drug promotion practices, as well as other practices connected to the pharmaceutical representative profession.

The survey included questions about self-perception regarding ethical drug promotion practices.

The 150 surveys were distributed in printed form to pharmaceutical representatives located in 14 counties in Romania. The work area represented approximately 75% of the country, taking into account that each rep can be active in a maximum of 4 counties. The printed surveys were accompanied by the informed consent paper, explaining all details about the purpose of the research, guaranteeing confidentiality of personal data and the method for dissemination of the study results. The option "not to take part in the study" was granted to all subjects. The research was approved by the Ethics Committee of the "Gr. T. Popa" University of Medicine and Pharmacy in Iași. Out of the 150 surveys distributed, 120 were sent back, and only 70 of these were taken into consideration, the other 50 having been eliminated due to the following criteria: doubt about the individual filling in of the survey (e.g. signature missing from the informed consent paper) or the surveys not fully filled in.

The study took into account several variables, such as: age, gender, county, the pharmacist's work environment (urban/rural), years of practice (length of employment) and type of education (medical/non-medical).

The assessed dimensions of the pharmaceutical representative's perception of drug promotion practices, listed in the survey, were the following:

*Dimension 1:* Knowledge about the existence of an ethical drug promotion code of the employing company.

*Dimension 2:* Features of the information provided by the pharmaceutical representative about the products in promotion:

Item 1: accurate,

Item 2: sufficiently comprehensive,

Item 3: balanced by comparison with the competition.

*Dimension 3:* Accuracy of studies used by pharmaceutical representatives to support their promoted products.

The items were multiple choice, with answer options on a scale of 1 to 4, where 1 – *never*, 2 – *sometimes*, 3 – *often*, 4 – *always*.

The collected data were processed by means of the statistical processing software *SPSS* (Statistical Package for Social Sciences) version 17.0 for Windows.

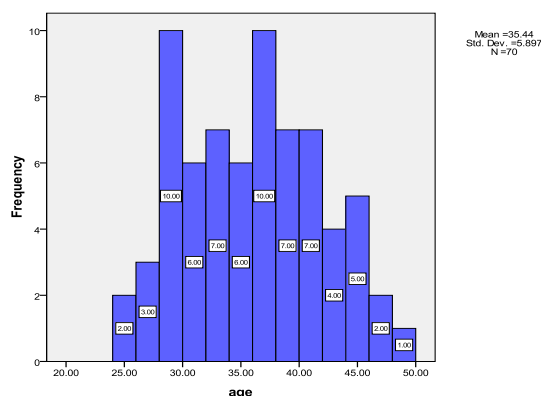
The following types of statistical methods were used:

- descriptive statistics, which pursued the central tendency and dispersion indicators (the mean and standard deviation);
- correlational study, to identify the various correlations between independent and dependent variables, by calculating Spearman's correlation coefficient (correlations being significant at an accepted significance threshold  $p < 0.05$ ). Spearman's coefficient was used because nonparametric data was involved.

## Results and Discussion

### Descriptive statistic

Of the 150 surveys distributed, 70 have been processed, representing 46.66% processed surveys, of the total number distributed.



**Figure 1.**

Pharmaceutical representatives' distribution by *age*

The group of pharmaceutical representatives whose surveys were taken into account had an average age of  $35.44 \pm 5.89$  years, the minimum age being 25 and the maximum being 48.

The share of female and male pharmaceutical representatives is balanced. Of the surveyed pharmaceutical representatives, 34 subjects, that is, 48.57% were male (with an average age of  $37.20 \pm 5.81$ ) and 36, representing 51.43%, were female (with an average age of  $33.77 \pm 5.54$ ). By age, the subjects' distribution is presented in the histogram below.

Work experience ranges from 1 to 27 years, with an average of  $11.60 \pm 5.76$  years. There are no major differences in the length of employment variable between genders, as illustrated in the table below:

**Table I**

Average length of employment depending on the *gender* variable

Gender	N	M ± SD
male	34	11.76 ± 5.49
female	36	11.44 ± 6.00
Total	70	11.60 ± 5.76

The length of employment at the current job was also taken into account. The minimum length of employment as a pharmaceutical representative declared was 1 year and the maximum was 18 years, with an average of  $8.02 \pm 4.6$  years.

The pharmaceutical representatives who answered the survey are spread in 3 regions, residing in 14 Romanian counties. The considered regions have been: Region 1 (the Northern region, including counties: Bihor, Cluj, Braşov, Alba, Bistriţa-Năsăud, Sibiu, Harghita, Mureş (64.3%)); Region 2 (The Southern part: Bucureşti, Vrancea, Constanţa, Galaţi, Dolj, Prahova (27%)) and Region 3 (The Eastern region, including counties: Bacău, Iaşi (8.6%)).

Of the 70 pharmaceutical representatives included in this study, 41 (58.57%) have medical studies (are specialized in General Practice Medicine or Pharmacy) and 39 subjects (41.43%) have graduated from other, non-medical faculties.

**Table II**

Distribution of subjects by *age*, *education* and *working area*

		Male	Female
Number of subjects	(N)	34	36
education	medical education	22 (31.43%)	19 (27.14%)
	non-medical education	12 (17.14%)	17 (24.29%)
working area	urban	28 (40%)	28 (40%)
	rural	1 (1.4%)	4 (5.71%)
	both urban and rural	5 (7.14%)	4 (5.71%)

Subjects' distribution by county was as follows: Bacău (N = 3; 4.3%), Iaşi (N = 3; 4.3%), Vrancea (N = 1; 1.4%), Bucureşti (N = 4; 5.7%), Cluj (N = 20; 28.6%), Constanţa (N = 11; 15.7%), Dolj (N = 1; 1.4%), Galaţi (N = 1; 1.4%), Prahova (N = 1;

1.4%), Timiş (N = 1; 1.4%), Braşov (N = 6; 8.6%), Alba (N = 1; 1.4%), Sibiu (N = 7; 10%), Mureş (N = 10; 14.3%).

A total of 56 pharmaceutical representatives, representing 80%, work in urban environments, 5

subjects (7.14%) work in rural environments and 9 of the surveyed representatives (12.86%) carry out the promotion of products of their employing companies both in urban and in rural areas.

A number of 28 men (40%) and 28 women (40%) work as pharmaceutical representatives in urban environments; 1 man (1.43%) and 4 women (5.71%) work in rural environments; the subjects who carry out their professional activity both in rural and in urban areas are 5 men, representing 7.14%, and 4 women (5.71%).

The survey addressed to pharmaceutical representatives comprises 5 questions aimed at identifying their opinion about the following aspects:

1. pharmaceutical representative's employing company has an official ethical code for drug promotion;
2. the information provided by the rep about products is accurate, balanced and comprehensive;
3. accuracy of the studies used by the pharmaceutical representative to support promoted products;

The quantitative analysis of pharmaceutical representatives' answers to questions regarding the promotion of products belonging to the represented

companies, as well as other aspects of their activity, was the following:

1. Answers to the first question "The employing company has an official ethical drug promotion code?" were the following: 64 subjects surveyed (91.4%) declared "yes", 3 subjects (4.3%) declared it does not have an official ethical code and 3 reps (4.3%) mentioned that they were not aware of such an official ethical drug promotion code. So, 91% of pharmaceutical representatives sustained that their employing company has an official ethical code of drug promotion.

2. To the question referring to the way they perceive information provided by the pharmaceutical representative about the promoted products, a scale of 0 to 5 was used, where 0 was minimum accuracy/incomplete/completely unbalanced, and 5 was maximum accuracy/fully comprehensive/maximum equidistance.

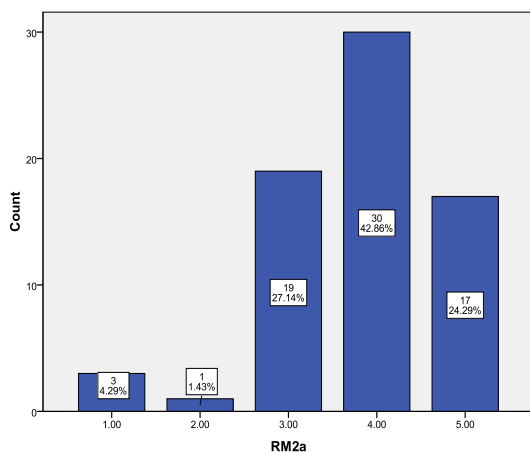
The comparison of averages in the three items revealed that pharmaceutical representatives consider the information they present as rather complete, relatively accurate and that, to a lesser extent, they believe the information is less balanced compared to the competition.

**Table III**

Statistical mean for answers regarding information provided by the pharmaceutical representative

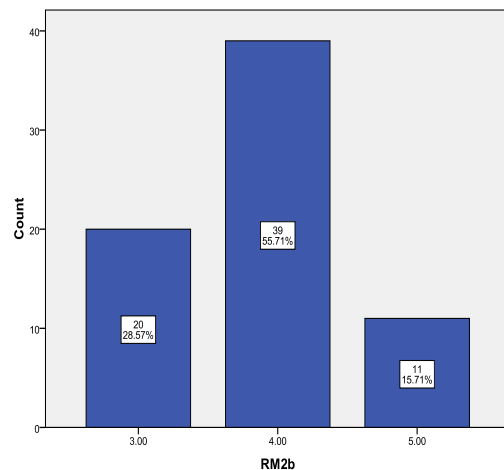
Items	M ± SD
The information presented is accurate (where 0 = minimum accuracy, 5 = maximum accuracy)	M = 3.81± 0.96
The information presented is comprehensive (where 0 = <i>totally incomplete</i> , 5 = <i>totally complete</i> )	M = 3.87± 0.65
The information is presented in a balanced manner, by comparison with the competition (where 0 = <i>completely unbalanced</i> and 5 = <i>maximum equidistance</i> )	M = 3.67± 1.03

The distribution of answers to the three items of the dimension is presented in the figures below:



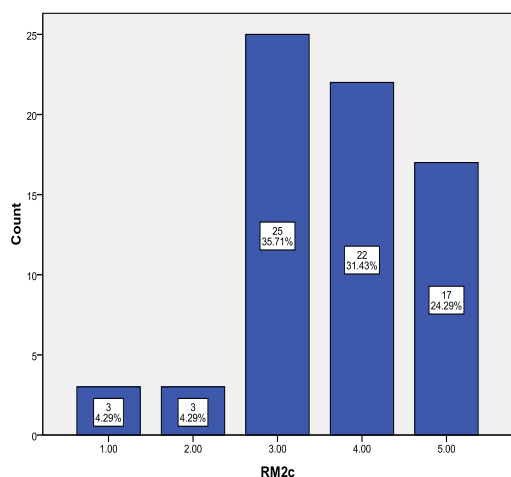
**Figure 2.**

Distribution of answers to the item: *Information is accurate*



**Figure 3.**

Distribution of answers to the item: *Information is comprehensive*



**Figure 4.**

Distribution of answers to the item: *Information is balanced compared to the competition*

Reps consider the information they present to be rather comprehensive, secondly, accurate, and thirdly, balanced by comparison with the competition.

3. The third question verified the accuracy of the studies by which pharmaceutical representatives support the promoted products, subjects being asked to assess it on a scale of 0 to 100. The mean is  $81.57 \pm 12.26$  ( $80.73 \pm 14.20$  is the answer for

male subjects and  $82.36 \pm 10$ , the answer for female subjects), with a minimum of 30 and a maximum of 100. The comparative analysis had not highlighted statistically significant differences between the means of female and male drug reps' answers.

*Correlational Study*

This research aimed to identify if there are significant correlations between the items and the independent variables. We used *Spearman* correlation to identify a relationship between ages, lengths of employment and questionnaire's items.

The age seems to strongly influence the pharmaceutical representative activity meaning that the older the pharmaceutical representative is, the more interested in presenting information about drugs or products are accurate ( $0.271^*$ ,  $p = 0.023 \leq 0.05$ ) – positive correlation.

The length of experience in the field is also influencing the opinion regarding the accuracy of the information presented about the company's products ( $0.237^*$ ,  $p = 0.048 \leq 0.05$ ), showing a positive correlation between variables.

The statistical data presented by the *National Health Insurance House* proves an increased number of prescriptions in Romania in 2014 compared to 2013 [12]:

**Table IV**

Statistical Data of *National Health Insurance House* regarding the number of prescriptions for 2013 and 2014

	Prescriptions	Dispensed prescriptions from independent pharmacies
2013	48.410.856	45.721.044
2014	50.100.000	48.100.000

These data prove that there is an increasing number of prescribed and dispensed prescriptions. The need for drugs is higher and the use also increased from a year to another, so there is enough motivation for the pharmaceutical companies to play its important role on the market in Romania and for pharmaceutical representatives to become more and more determined to raise their targets.

**Conclusions**

The Pharmaceutical Representatives' relationship with the physician and the pharmacist is a complex one, regulated by codes of ethics of the Pharmaceutical Industry, relying on the ARPIM (Romanian Association of International Medicine Manufacturers) Code. Beside this code, there are various internal codes of ethics, depending on each company.

According to our results, the employing company has an official code of ethics for drug promotion; the pharmaceutical representatives' answers are distributed thus: 91.4% declare they know about the existence of such a code, 4.3% declare the company

has no official code of ethics, 4.3% mention they are not aware of an official code of ethics for drug promotion.

The regulations of the ARPIM Code are matched by internal regulations referring to:

- the way to relate to healthcare specialists – most possible aspects being covered by these codes;
- criteria for the selection and sponsorship of healthcare professionals, for participation in courses or events;
- criteria for giving informal gifts.

Our conclusion is that the pharmaceutical industry in Romania has self-modulated sufficiently, but certain issues can be identified in some companies.

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