

# PHARMACEUTICAL INDUSTRY IN PAKISTAN: UNETHICAL PHARMACEUTICAL MARKETING PRACTICES

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## 1.0.0 INTRODUCTION

The unethical drug practices are common phenomenon worldwide but it is more severe in developing countries. Unethical drug practices have two dimensions. One is drug related, and other is drug promotion related. Extensive researches on drug related unethical practices have been carried out internationally. However, there is a dearth of literature on unethical drug promotion practices. Parmar and Jalees (2004) observed that pharmaceutical industry spends a substantial portion of its budget on market research but do not carry out the research on how to curb the unethical drug promotion practices.

Unethical marketing practices have become an integral part of Pakistan's pharmaceutical industry. These practices are so deep rooted that it has become extremely difficult for pharmaceutical companies to compete without indulging in such practices (Parmar & Jalees 2004). The findings of the study by Parmar & Jalees (2004), were mainly focused on such practices in one city, Hyderabad, therefore, it lacked generalizability. In view of this limitation there was a need to find whether such unethical practices exist in other parts of country as well. This paper has been undertaken with the objective of broadening the scope of the study to the whole of Pakistan.

Lack of research on the subject does not mean that unethical drug promotion practices do not exist. The pre-survey and focus group discussions indicate that unethical pharmaceutical marketing practices have become an acceptable norm of the pharmaceutical industry, and almost all the pharmaceutical companies patronize these unethical practices in collaboration with doctors, government and private hospitals, health related agencies, and pharmacies at the cost of patients' well being.

All the entities as discussed above appear to be directly or indirectly involved and it would not be fair to blame any one of them, including pharmaceutical industry. The focus of the subject study was to identify the intensity and trends of unethical drug promotion practices in Pakistan. Ascertain the involvement of doctors, health related institutions and the pharmaceutical industry in promoting such practices.

## 1.2.0 LITERATURE SURVEY

The previous researches indicate that unethical pharmaceutical marketing practices have become an acceptable norm of the pharmaceutical industry, and almost all the pharmaceutical companies patronized these unethical practices in collaboration with doctors, government and private hospitals, health related agencies and pharmacies at the cost of patients' well being. (Parmar and Jalees 2004)

Zaidi, et.al, (1995) observed that in the 13th national psychiatric conference held at Abbottabad in September 1999 nine papers were read by different doctors; however, most of the papers were not on the subject issue but were mainly focused on their experience of administrating specific drugs to the patients. Incidentally, some of the foreign guests thought that the conference was not on psychiatric issue but it was more on the specific drug promotion activity. Two inferences could be drawn from this incidence. One, the participating doctors were so involved and occupied in their profession that they erroneously ignored the themes and the objectives of the conference; second, that the doctors did not spend considerable time for developing the appropriate paper for the conference. (Zaidi, et.al, 1995)

A report on the practices of 20 of the world's biggest drug companies revealed that "drug companies use unscrupulous and unethical marketing tactics not only to influence doctors to prescribe their products but also subtly to persuade consumers that they need them." (Pogo et.al, 2006). The report further alleges that since the drugs companies cannot legally advertise their product to the consumers, therefore, in order to circumvent this drug companies are promoting their products through patients groups, students and internet chat-rooms. (Pogo et.al, 2006). The authors also observed that the pharmaceutical companies through press releases and web pages educate consumers on "modern" lifestyle diseases, such as stress and poor eating habits, but their prime objective for all such activities is to promote their drugs. [Pogo et.al 2006]

A study on relationship between the medical professionals and the pharmaceutical industry found that the pharmaceutical industry is responsible for corrupting the medical professionals. The study also found that this un-ethical drug practices is not limited to developed countries but is also found in developing countries, also. (Zaidi et.al. 1995). The authors, also, observed that the industry is rewarding the doctors for prescribing their medicines, despite the fact that better and cheaper medicines are available in the market. The reward is inclusive of

sending physicians and their families to recreational places within the country and overseas, giving expensive gifts, footing the bills of doctors' birthday parties, wedding receptions and furnishing doctors homes and clinics. It has also been alleged that leased cars have also been provided to the doctors by the firms for extensively prescribing their medicines [Zaidi et.al 1995]

A similar research was undertaken in Nepal and the findings were that doctors, generally prescribes those medicines that are actively and unethically promoted by medical representatives. The authors observed that it is easier for the pharmaceutical company to entertain doctors' demand of personal traveling, and lodging as these expenses could be booked in the heads of conferences and seminars. [Bishnu & Ravi 2005]

Fisher et.al. (1993) observed "It is unethical for journals that publish reports on psycho-Pharmacology to accept drug company money for anything. And, I think it equally unethical that the American Psychiatric Association allows Drug Company sponsored symposia as part of its annual meetings." [Fisher, Bryant & Kent 1993]

All promotion by definition is information whose aim is to market a product and as such has an inherent bias towards showing the product in the best possible light. Globally, there is a huge imbalance between the available resources for promotional activities viz. independent information. As a result consumers and doctors are generally subjected to a positive information bias that is drug companies portray exaggerated benefits of drug use while downplaying the risks and the side effects. (Lexchin, 1995)

Arun ( 1998) observed irrational drug formulation regulations contributes heavily for increasing the drug cost. For example, in US the drug development and approval cost is about \$ 9.4 million. Pharmaceutical companies being profit-oriented thus have to resort to aggressive marketing in order to meet this overwhelming drug formulation cost and to have a reasonable profit to satisfy the stake holders.

Daniella, Zipkin & Michael (2005) studied the interaction between pharmaceutical representatives and internee (trainee doctors). They found that it is common for pharmaceutical sales representatives to interact with the internees. Most of the internees were of the opinions that there is nothing unethical on the interactions of the sales representatives and internees. However, a few of them confessed that factors such as visits & contact of pharmaceutical sales representatives, gifts and giveaway and quantity of sample medicines have a positive influence on prescribing medicines. (Daniella, Zipkin & Michael, 2005)

Parmar and Jalees (2004) developed the distinctions between ethical, and unethical drug promotions practices based on the focus group discussions. The acceptable norms of promoting drugs through doctors are visiting them, giving them presentations on the merits and demerits of the drugs. Explicitly, pointing out the side effects of drugs, giving nominal quantity of drugs sample. These gifts and give away must not be highly expensive and restricted to items such as dairies, calendar, year planner, etc. (Parmar and Jalees 2004)

Comparatively, unethical drug promotion practices are prescribing drugs to the patients based on the monetary considerations, and ignoring the well being of the patients. The commonly used monetary rewards for unethical promotion of the drugs are discussed below: [Parmar and Jalees 2004]

### **(i) Monetary Reward**

The crudest form of unethical drug promotion is monetary reward. In this category, the cash reward is linked with the quantum of the drug prescriptions. The payments, in this case, are made on monthly or quarterly basis.

### **(ii) Visits Within Country**

In this category, the pharmaceutical companies arrange conferences and seminars for the doctors in those cities where doctors are not domiciled. The objectives of such conferences/seminars may be to update the doctors on the latest development, but the real motive is to provide fully paid vacation. The pharmaceutical companies arrange the air

traveling, lodging and boarding in a five star hotels. This paid vacation could be for the doctors, and their family members. Doctors travel to other cities for personal reasons.

### **(iii) Foreign Visits**

In this category, pharmaceutical companies arrange foreign visits of the doctors. Like local visits, the foreign visits again are arranged in the backdrop of seminar and conferences but again the real motive is to provide fully paid vacations to the doctors and their families. All the traveling bills, boarding and lodging are again borne by the pharmaceutical companies. These foreign visits are generally restricted for those doctors who are actively involved in promoting their drugs.

### **(iv) Gifts & Give away**

#### **a. Medical Equipments:**

Pharmaceutical firms give medical equipments like stethoscope, thermometers, surgical kits and other expensive medical equipments.

#### **b. Personal Use Items:**

In this category the pharmaceutical companies give personal use items such as mobile, laptop, air-conditioners, and even cars.

### **(v) Chamber Decoration**

In this category, the pharmaceutical companies, not only, refurnish the doctors' chambers, but also arrange furniture/fixture, sign boards, air-conditioners, computers, curtains, etc.

### **(vi) Home Decoration**

The arrangement of the home decoration is similar to the chambers' decorations as discussed above.

## **1.3.0 PHARMACEUTICAL INDUSTRY**

After partition, Pakistan did not inherit any industrial base. Like other consumer items, Pakistan met the drugs demand through imports. The situation remained the same up to 1960. In early sixties the multinational pharmaceutical companies made heavy investment in Pakistan for setting up pharmaceutical manufacturing units. National pharmaceutical companies also got encouraged, and started making

capital investment during the same era. In 1985, the market share of multinational and national pharmaceutical industry was 65% and 35% respectively. [IMS, Q3 & Q4, 2005]

Presently there are about 586 leading Nationals and Multinational pharmaceutical companies operating in Pakistan. Of this total, 23 are multinationals and rest are local companies. The local companies can be classified into three categories: (1) Manufacturing units (2) Importers that imports drugs in finished form, and (3) Franchisers (not to be confused with the franchisors in the FMCG). These companies have all the required marketing setup and facilities, but do not have drug manufacturing facilities. These companies obtain the drug marketing rights from other drug manufacturing companies on profit sharing basis. The prevailing market size of the industry is of Rs.80.11 billion, of this total the market share of national pharmaceutical industry is 59%.. [IMS, Q3 & Q4, 2007]

The drugs prices of the national pharmaceutical companies are lower, as they have a choice of procuring the raw material from those countries where it is available at a cheaper rate. The other reason for the price differential is that the budget of national pharmaceutical companies on research and development is nominal as compare to multinationals companies. Multinational companies invest a substantial portion of their sales on R & D. Launching a new molecule in the market cost billions of dollars, therefore, they have to adapt to marketing skimming strategy to meet the product development cost and to skim the profit before patent period expires. Multinational companies know that after the expiry of the prescribed patent period other companies would launch the same drug or imitated drug at a cheaper rate. The local national companies have two advantages. One, they don't invest any funds on Research & Development and second, they procure raw material from cheaper resources [Parmar & Jalees, 2004].

#### 1.4.0 STATEMENT OF THE PROBLEM

Is unethical drug promotion practice common in Pakistan? Who initiated unethical drug promotion practice in Pakistan? Who is responsible for the

continuation of the same?

#### 2.0.0. METHODOLOGY

The following methodology was adopted for achieving the objectives of the study:

##### 2.1.0 POPULATION AND SAMPLE SIZE

The defined population of the study comprised of doctors (General Practitioners, Medical Officers, Consultants of different specialties, Opinion Leaders), Pharmaceutical Personnel (Medical Representatives, Sales Managers, Product Managers), Pharmacists of different pharmacies, Influential personnel of private and government hospitals.

The samples size for the subject study was 120. As per Sekaran (2003) for multivariate sampling a minimum of 20 samples per variable is required. Thus the appropriate sample size should have been 80. However, to have a better representation, samples size of 120 was selected. The breakdown of the sample size was as follows:

No.	Sample	No. Of Samples
01	General Practitioners	17
02	Medical Officers	19
03	Consultants	11
04	Opinion Leaders	16
05	Pharma personnel	21
06	Government Hospitals	12
07	Private Hospitals	07
08	Pharmacies	17

The Hypotheses were tested through statistical techniques such as Z-test, t-test and F-test. A qualitative analysis was also carried out for analyzing the other critical factors discussed in the study.

##### 2.2.0 DATA COLLECTION METHOD

The questionnaires were administered in all the 8 cities simultaneously through sales force of a drug company. All the persons involved in administering the questionnaire were given an extensive orientation on the purpose and the objectives of the study.

## 3.0.0 SURVEY FINDINGS

### 3.1.0 HYPOTHESES TESTING

Four different hypotheses were developed and tested using Z-test, simple ANOVA and F-test. The results and interpretation of the four developed hypotheses are presented below:

#### 3.1.1 HYPOTHESIS 1

*H1<sub>0</sub>*: The level of unethical drug promotion practices in pharmaceutical industry is high (at least 4) on the scale of (5 to 1)

The above hypothesis was tested through Z-test and the summarized result is presented below:

**Table 1**

Level Of Unethical Drug Promotion Practices.	
Mean	4.39
Standard Deviation	0.54
Hypothesized mean	4.00
Confidence level	0.95
Critical value one tail	1.65
Critical value two tail	1.96
Z-Calculated value	7.96

The hypothesis relating to high level of unethical drug promotion practices (at least 4 on the scale of 5-1) was substantiated. At 95% confident level, Z critical value is -1.65, and Z-calculated value is 7.96 that falls in the non-critical region.

It may be pointed that the level of unethical drug promotion practices as was ascertained by Parmar and Jalees (2004) in their research was 3.56. The reason could be that the previous study of (Parmar and Jalees) was a case study of Hyderabad only, where as this study is all Pakistan based, and the sample drawn is a representative sample.

#### 3.1.2 HYPOTHESIS 2

Focus group discussions indicate that the level of unethical drug promotion practices is high in rural

areas. Thus the following hypothesis was formulated: *H2<sub>0</sub>*: The levels of unethical drug promotion practices are high in rural areas.

Above hypothesis was tested through Z-Test (two variables) and the summarized result is presented below:

**Table 2**

**Level Of Unethical Drug Promotion Practices In Rural Area**

	Rural	Urban
Mean	4.66	3.83
Known Variance	0.44	0.54
Observations	120	120
Hypothesized Mean Difference	0	
Z	9.19	
P(Z<=z) one-tail	0	
z Critical one-tail	1.64	
P(Z<=z) two-tail	0	
z Critical two-tail	1.95	

The hypothesis relating to higher level of unethical drug promotion practices in rural areas was substantiated. At 95% confidence level the Z-critical value is -1.64 and Z-calculated value is 9.19 that fall in the non-critical region.

#### 3.1.3 HYPOTHESIS 3

An important aspect is who was responsible for initiating the unethical drug promotion practices in Pakistan. Doctors, pharmaceutical companies, hospitals, and pharmacies all have different opinions. Thus the following hypothesis was developed:

*H3<sub>0</sub>*: There is no significant difference on the opinions of doctor, pharmaceutical companies, hospitals, and pharmacies on “who initiated unethical drug promotion practices” in Pakistan.

The above hypothesis was tested through simple



ANOVA, and the summarized results are presented below:

**Table 3**

**Opinion On Who Initiated The Unethical Drug Promotion Practices**

Groups	Count	Sum	Average	Variance
Pharmaceutical company	120.00	436.00	3.63	2.52
Doctors	120.00	283.00	2.36	3.12
Hospitals	120.00	138.00	1.15	0.46
Pharmacy	120.00	130.00	1.08	0.18

Source of Variation	SS	df	MS	F	P-value	F crit
Bt. Groups	521.56	3.00	173.85	110.64	0.00	2.62
Within Groups	747.93	476.00	1.57			
Total	1,269.48	479.00				

The hypothesis relating to no significant difference of opinions on “who initiated unethical drug promotion practices” in Pakistan was rejected. At 95% confidence level and (3, 476) degree of freedom the calculated F value of 110.64 is greater than F- critical values of 2.62.

The above analysis also indicates that the respondents believe that the pharmaceutical industry had initiated unethical drug promotion practices in Pakistan with a mean of 3.63. The doctors’ contribution on this issue appears to be on the lower side with a mean of 2.36.

### 3.1.4 HYPOTHESIS 4

In the previous hypothesis, it was discussed who initiated unethical drug promotion practices, in Pakistan. Focus group had diverse opinions on who is more responsible for the continuation of this practice. Thus to resolve the diversified opinion the following hypothesis was developed.

*H40:* The contribution of the pharmaceutical industry in continuation of unethical drug promotion practices is higher than the doctors.

Above hypothesis was tested through Z-Test (two variables) and the summarized result is presented below:

**Table 4**

**Opinion On Who Continued The Unethical Drug Promotion Practices**

	Pharmaceutical company	Doctors
Mean	2.78	3.72
Known Variance	3.43	2.56
Observations	120.00	120.00
z	(4.18)	
P(Z<=z) one-tail	0.00	
z Critical one-tail	1.64	
P(Z<=z) two-tail	0.00	
z Critical two-tail	1.96	

The hypothesis relating to a higher contribution of pharmaceutical industry in unethical drug promotion practices was rejected. At 95% confidence level, the Z critical value is -1.64 and Z-calculated value is -4.18 that falls in the critical region. Based on the above and previous analysis the following conclusion could be drawn (1) the pharmaceutical industry was responsible for initiating the unethical drug promotion (2) The doctors appears to be responsible for the continuation of the same.

### 3.2.0 QUALITATIVE ANALYSIS

#### 3.2.1 Tools Of Unethical Drug Practices

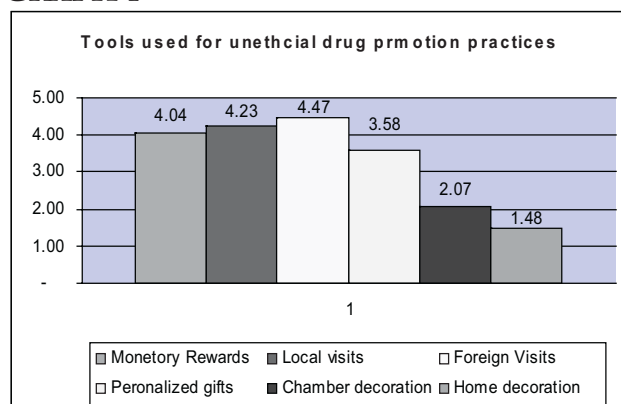
In the literature survey, it was discussed that the pharmaceutical industry relies on the factors such as monetary rewards, local visits, and foreign visits

etc. for pursuing the unethical drug promotion strategy. The intensity of these tools is presented below:

**TABLE 5**

Monetary Rewards	Local visits	Foreign Visits	Personalized gifts	Chamber decoration	Home decoration
4.04	4.23	4.47	3.58	2.07	1.48

**GRAPH 1**



The above table and graph shows that foreign visits with a mean of 4.47 are more in demand and local visits being the second. The reasons for high preferences for local visits and foreign visits are that pharmaceutical industry could justify these expenses by charging these expenses in the heads of conferences and seminars.

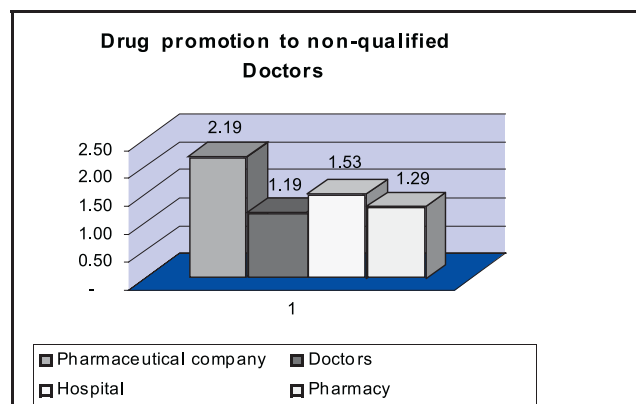
### 3.2.2 Drug Promotion To Non-Qualified Doctors

Opinions on drug promotion to non-qualified doctors were obtained. Ethically, the firms should not promote their drugs through them. The respondents' opinions are presented below:

**TABLE 6**

Pharmaceutical company	Doctors	Hospital	Pharmacy
2.19	1.19	1.53	1.29

**GRAPH 2**



Majority of respondents' of all the segments such as doctors, Pharmaceutical companies, hospitals, pharmacies, were strongly against drug promotion to the non-qualified doctors. However, despite their opinions it is a fact that the drugs are being promoted through non-qualified doctors.

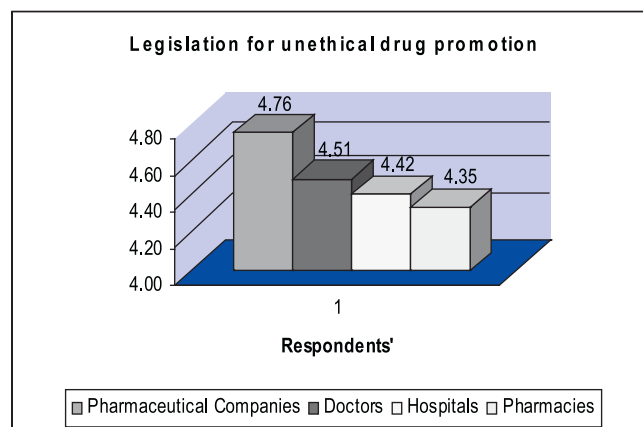
### 3.2.3 Legislation For Unethical Drug Promotion

Respondents' opinions were obtained on the prospects of strong legislation against unethical drug promotion practices. The respondents' opinions are presented below:

**TABLE 7**

Pharmaceutical company	Doctors	Hospital	Pharmacy
4.76	4.51	4.42	4.35

**GRAPH 3**



The majority of respondents' were strongly in the favor of strong legislation against the unethical drug promotional practices in Pakistan. Although there are already some legislation on this issue it is not being implemented.

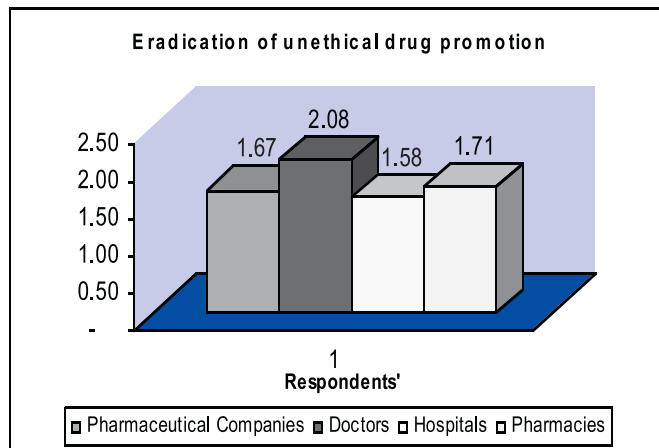
## 3.2.4 ERADICATION OF UNETHICAL DRUG PROMOTION

Opinions on of the respondents were taken whether it is possible to stop this unethical drug promotion practices in Pakistan. The respondents' opinions are presented below:

**TABLE 8**

Pharmaceutical company	Doctors	Hospital	Pharmacy
1.67	2.08	1.58	1.71

**GRAPH 4**



Above graph shows that the majority of the respondents' i.e. doctors, pharmaceutical personnel, hospitals and pharmacies, strongly disagreed with the statement that the unethical drug promotion practices cannot be stopped, now. Majority of respondents' were of the opinion that these unethical practices can still be stopped.

## 4.0.0 CONCLUSIONS

The doctors and the pharmaceutical companies are equally responsible for unethical drug promotion practices in Pakistan. However, an interesting aspect on this issue is that pharmaceutical companies were

responsible for initiating these unethical drug practices in Pakistan, and the doctors' are responsible for the continuation of the same. The doctors not only demand different rewards for prescribing medicine but a few of them do not prescribe the medicines of those companies who are reluctant to give monetary rewards.

The summarized results of the tested hypothesis are presented below:

- 1) The hypothesis relating to high level of unethical drug promotion practices (at least 4 on the scale of 5-1) was substantiated. At 95% confident level, Z critical value is -1.65, and Z-calculated value is 7.96 that falls in the non-critical region.

It may be noted that the level of unethical drug promotion practices as was ascertained by (Parmar and Jalees, 2004) in their research was 3.56. The reason for such a difference in the findings could be that the study of (Parmar and Jalees) was a case study of one city (Hyderabad) only, where as this study is all Pakistan based.

- 2) The hypothesis relating to higher level of unethical drug promotion practices in rural areas was substantiated. At 95% confidence level the Z-critical value is -1.64 and Z-calculated value is 9.19 that fall in the non-critical region. Therefore, it has been concluded that the level of unethical drug practices are higher in rural areas as compared to urban areas.
  - 3) The hypothesis relating to no significant difference of opinions on who initiated unethical drug promotion practices in Pakistan was rejected. At 95% confidence level and (3, 476) df the calculated F value of 110.64 is greater than F- critical values of 2.62.
- The general perception was that the pharmaceutical companies were responsible for starting this unethical drug promotion practices with a mean of a mean of 3.63.
- 4) The hypothesis relating to a higher contribution of pharmaceutical industry in continuation of unethical drug promotion practices was rejected. At 95% confidence level, the Z critical value is -1.64 and Z-



calculated value is -4.18 that falls in the critical region. Therefore, it has been concluded that pharmaceutical industry is not responsible for continuation of unethical drug promotion practices but the doctors are responsible for the same.

The qualitative aspects of the analyses are presented below:

- a) The commonly used tools for unethical drug promotion practices were monetary rewards, local visits, and foreign visits etc. The drug industry prefers arranging foreign and local visits of doctors for prescribing their medicines as these expenses could be charged in the heads of seminar and conferences.
- b) Although majority of respondents were strongly against drug promotion to non-qualified doctors, but still the same is being practiced, especially in rural areas.
- c) The majority of respondents were in favor of strong legislation against the unethical drug promotional practices.
- d) Majority of the respondents were of the opinion that it would be very difficult to stop the unethical drug promotion practices.

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