**Attitudes and interaction between physicians and pharmaceutical industry**

**Interactions between physicians and the pharmaceutical industry generally and sales representatives specifically and their association with physicians’ attitudes and prescribing habits: a systematic review [1]**

- In 2012, $89.5 billion was spent on physician -pharmaceutical sales representative that accounted for 60% of the global pharmaceutical marketing expenditures.

- 49 studies included in **qualitative synthesis**

- This study found that physician-pharmaceutical sales representative interactions are a regular feature in the daily lives of doctors.

- Most of the physicians meet with sales representative at least once a month.

- The frequency of physician-sales representative interactions and gifts offered varied according to the private and public hospital setting and the physicians’ position.

- The interaction between residents and sales representatives was significantly higher at the start of the residency and Junior residents received twice as free samples than seniors. In addition, more junior residents felt that pharmaceutical representatives have a valuable teaching role.

- The physician specialists interacted with medical representatives and received more samples and promotional materials than residents.

- Most common gifts offered by pharmaceutical company:

* Samples
* Promotional materials
* Invitations for dinners
* Invitations for CMEs
* Scientific journals
* Free lunches

- This study revealed that physicians have a positive attitude towards medical representatives, they perceived medical representatives as sources of information and education while some studies report skeptical attitudes about the contribution of medical representatives to teaching and education.

- In addition, physicians considered their colleagues more susceptible than themselves to PSR marketing strategies and they considered themselves immune to the influence of gifts.

- Some studies revealed that accepting samples lead physicians to prescribe branded drug rather than generic.

- The majority of attending physicians failed to identify inaccurate information about the company drug.

- “The effects of pharmaceutical firm enticements on physician prescribing patterns. There’s no such thing as a free lunch” study shows a significant increase (three times) in the prescribing rate of two company drugs after the physicians attended a company-sponsored symposium with all their expenses covered but still physicians insisted there was no impact on their prescribing behavior.

- No significant relationship between attending industry-paid launch and formulary request for the company's drug.

- A significant relationship between attending company-sponsored CME events and higher branded drug prescription.

**Attitudes and Relationship between physicians and the pharmaceutical industry in a Public General Hospital in Lima, Peru (2014) [2]**

-In the last decade, total amount invested in research and development of new drugs equaled total pharmaceutical marketing expenditures

- Marketing activities:

* Detailing
* Gifts to physicians
* Sponsorship of social activities
* Support of educational activities

- A study conducted in Spain reveals that physicians might be aware of the impact of marketing on their prescribing behavior but they consider marketing activities ethically acceptable if the patients end up generating from them.

- Objective of this study is to explore the interaction and attitudes of physicians with pharmaceutical company in a general hospital in Lima, Peru.(148 participants)

- Results;

* There is an active relationship between physicians and Pharmaceutical company
* 95% of attending and 85,7% of residents have at least one monthly interaction with medical representatives.
* 91,2% of physicians received samples.
* 87,8% of physicians received promotional material.
* 81,8% of physicians accepted invitations to dinners with frequency of at least once every four months.
* 31,8% of physicians received materials or equipment for professional use
* 27,8% of physicians received personal gifts
* 15,5% of physicians received travel expenses to Congress
* Reasons to accept medical representatives: 81,8% of physicians for respecting the another's job and 55,2% of physicians to receive drug samples.
* Concerning detailing activities: 75% considered that the information brought up by pharmaceutical representatives is ‘‘not trustworthy’’ and 80.3% stated that reps ‘‘prioritize the promotion of their products over patients’ benefit’’. In addition, 47.6% of all participants stated that the information provided by pharmaceutical representatives helps them ‘‘learn about new products’’ and ‘‘stay up to date’’.
* 88,5% of physicians believe that acceptance of gifts and dinner has no impact on prescribing decisions and 35,2% of physicians believe that those gifts affect their colleagues’ prescriptions.
* Anesthesiologists reported few numbers of encounters with medical representatives and more than half of them believe that most promotional activities and gifts affected the prescribing behavior. In contrast, pediatricians reported large number of encounters with medical representatives and likewise more than half of them didn’t believe that promotional activities influence prescribing behavior.
* Concerning drug samples, more than 82% of participants were willing to accept medical samples to offer them as free treatment to their resource-poor patients. In addition, 88% of them considered the acceptance of medical samples is ethical.

- Many studies revealed that patients that receive drug samples, usually end-up paying higher amount of money for their medication in the long run.

- As conclusion, this study shows a close and active relationship between physicians and medical representatives.

**Perceptions and Attitudes of Egyptian Health Professionals and Policy-Makers towards Pharmaceutical Sales Representatives and Other Promotional Activities (2015) [3]**

Objective : Explore and analyze the perceptions and attitudes of Egyptian physicians and pharmacists towards Pharmaceutical Marketing.

-Egypt, as the largest Arab middle-income country, with a population of about 85 million people and central to modern Middle Eastern politics, plays an influential role for pharmaceutical companies’ promotional strategies.

-47 pharmaceutical producers active in Egypt; 37 belonging to the public sector, 4 producers for the local private sector and 6 multinationals. Multinational and local private companies own more than half of the total market share.

-The Egyptian Medicines Authority (EDA) is the regulatory body for safety and quality of pharmaceutical products, conducting pharmaceutical practices and providing high-quality medicines at reasonable prices. In 2011, EDA established the Marketing and Media Control Department with the aim of reviewing and ensuring the safety of promotional materials and regulating the activities of the scientific offices of pharmaceutical companies.

- A qualitative study was conducted. ( Interviews with physicians and pharmacists)

**-**Attitudes of physicians and dentists towards promotional activities and sales representatives;

All physicians and dentists were aware of the business relationship with pharmaceutical company.

**Gifts** offered to physicians: drug samples, office supplies, cash and invitations to conferences or sponsored continuing medical education (CME) events.

Concerning the **information** **delivered by medical representatives**, The physicians interviewed felt that information often favored the medication of a particular company. They usually felt that they had not received clinical trial reports or other scientific publications, unless specifically requested from them. For older physicians, better quality information was delivered by sales representatives trained in pharmacy or those employed by multinational companies.

About **conferences** and continuing medical education, senior physicians describe it as important but Junior physicians are more interested in obtaining scientific articles and less attracted by sponsored seminars.

Regarding **ethical promotion**, physicians interviewed considered promotion involving scientific content but when promotion could harm patients it is considered as unethical.

-Prescribers' beliefs about influences on prescribing decisions;

**Sources of information used during prescribing decisions:** medical studies, scientific conferences, textbooks, scientific journals, individual experiences with pharmacological treatment, university staff prescription habits and available information on the Internet.

As results of this study, physicians did not feel influenced by pharmaceutical promotion in their prescription habits and it was mentioned that adjuvants and non-prescription medicines were more easily overprescribed than prescription medicines.

-Pharmacists’ attitudes towards pharmaceutical promotion;

Pharmacists had various attitudes towards pharmaceutical promotion.

“In Egypt, promotion is about financial promotion, not ethical promotion. So it is about how much profit you make, not whether this is an effective medicine” says one pharmacist.

In addition, pharmacists noted that they are aware of the incentives given to doctors to influence their prescribing pattern. This appears when doctors prescribe unnecessary medications.

-Prescribers and pharmacists awareness and opinions towards regulation of promotion;

There is a lack of knowledge and awareness of existing legal regulations.

-The doctors interviewed reported that they did not question accepting gifts of little or no financial value, but they were often reluctant to receive high-value gifts, describing them as bribes. We found that some considered promotional gifts bearing the name of a drug useful as a reminder of that name, which actually seemed to match the intentions of the pharmaceutical industry. Doctors who admitted accepting gifts probably did this because receiving gifts from drug companies was considered a common and accepted practice in Egypt and elsewhere.

-The reported visit frequency varied according to the physicians’ seniority in our rather selective and small sample this should be interpreted with caution. However, by comparison, the frequency of the reported visit was higher than that reported in Turkey, Tunisia, Libya, and Canada.

-The physicians considered the continued medical education (CME) events to be of high quality, but considered that juxtaposition of information and promotion was inconvenient.

-While the physicians give free medical samples to patients with poor social and economic conditions, it was demonstrate that availability of samples increases prescribing of the same brands, makes physicians adopt new drugs faster and shifts prescribing decisions towards less appropriate choices.

**References**

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