ASIAN JOURNAL OF PHARMACEUTICAL AND CLINICAL RESEARCH

INNOVARE ACADEMIC SCIENCES Knowledge to Innovation

Vol 7, Issue 1, 2014

ISSN - 0974-2441

Research Article

EVALUATING THE EFFECT OF MEDICAL REPRESENTATIVE ON PHYSICIAN PRESCRIBING PATTERN IN IRAQ

EHAB MUDHER MIKHAEL

[1] **University of Baghdad - College of pharmacy –Clinical pharmacy department. Email:** ehab_pharma84@yahoo.com

Received: 6 November 2013, Revised and Accepted: 5 December 2013

ABSTRACT

Objective: Evaluation of the interaction between medical representatives (MRs) and physicians and the effect of such interaction on physician prescribing behavior, according to the site of view for Iraqi pharmacists.
Methods: A survey for 36 pharmacists in their private pharmacies in different areas of Baghdad governorate was done through the use of a specific set of questions in a questionnaire format.
Results: Most participated pharmacists agreed that physicians at most times change their prescribing pattern by attendance of the MRs, additionally there is a significant decline in the number of prescriptions for the promoted drug by the absence of medical representative for long period of time, furthermore participated pharmacists agreed that there is an irrational prescribing patterns by most physicians in Iraq.
Conclusion: The interaction between MRs and physicians in Iraq, usually result in non rational prescribing patterns, which may in turn negatively affecting the health of the patients and on the other hand increases the cost of medications.

Keywords: Promotion, medical representative, prescribing pattern.

INTRODUCTION

Drug promotion refers to all informational and persuasive activities by manufacturers and distributors, the effect of which is to induce the prescription, supply, purchase and/or use of medicinal drugs [1]. There are many tactics for drug promotion that were adopted by pharmaceutical companies including: physicians-targeted promotions, direct to consumer advertising, unethical recruitment of physicians, researchers' conflicts of interest, and data manipulation in clinical trials [2]. However physician targeted promotion is the most common tactic for drug promotion since physicians are effectively the gatekeepers to drug sales [3]. It has been estimated that 84% of pharmaceutical marketing is directed toward physicians. This tactic includes items such as free samples, journal advertisements and visits from medical representatives to physicians [4]. Pharmaceutical companies use the service of medical sales representatives in marketing their products. These sales representatives need to be adequately trained and possess sufficient medical and technical knowledge to present information about the products in an accurate and responsible manner. The medical representative (MRs) should not only be able to provide accurate information, but should also not to exaggerate the capabilities of the product [5]. Interactions between physicians and MRs are inevitable and desirable, but may create conflicts of interest for physicians [6]. So it is the practitioner's duty to get the information from MRs but should take care not to be unduly influenced by their sales pitch [7].

Thus this study aimed to evaluate the interaction between medical representatives and physicians and the effect of this interaction on physician prescribing behavior, according to the site of view for Iraqi pharmacists.

METHODS

This study was conducted through 2 weeks in 2013. A survey for 36 pharmacists in their private pharmacies in different areas of Baghdad governorate was done through the use of a specific set of questions in a questionnaire format as shown below. Each pharmacist who accepts to participate in this study was asked to answer the questions honestly by depending on his/her experience while working in the private sector. Chi square test was used to test the significance of difference among different variables. P values less than 0.001 was considered significant.

The questionnaire format involves the following questions to the pharmacist:

Q1. Do you notice that physicians change prescribing patterns by the attendance of medical representative?

Yes, at most times
Yes, but some times
Not at all

Q2. Is the number of prescriptions for the promoted drug declined by the absence of medical representative for long period of time?

Yes, at most times
Yes, but some times
Not at all

Q3. Do physicians who usually prescribe certain generic drug change it to another generic drug after attendance of medical representative of the new generic company?

Yes, at most times
Yes, but some times
Not at all

Q4. Do physicians who usually prescribe certain generic drug change it to brand drug after attendance of medical representative of the brand company?

Yes, at most times
Yes, but some times
Not at all

Q5. Do physicians who usually prescribe brand drug change it to generic drug after attendance of medical representative of the generic company?

Yes, at most times
Yes, but some times
Not at all

Q6. Is there any irrational prescribing

Yes
No

RESULTS

Table 1 showed that 67% of participated pharmacists believe that the physician at most times change his/her prescribing pattern (P value < 0.001) by attendance of the MRs, this question was accompanied by 3 additional questions (Q3, Q4 and Q5) for further confirmation of the above result, these questions focusing on the pharmacist's opinion regarding the change in physician prescribing pattern among generic and brand drugs under the influence of MRs. Most physicians change prescribing pattern (P value < 0.001) for medications from one generic company to another or from generic to brand, while there is a non significant shift among physicians from brand to generic drugs. In addition to that participated pharmacists see that there is a significant decline in the number of prescriptions for the promoted drug by the absence of medical representative for long period of time; Furthermore, Iraqi pharmacists agreed (P < 0.001) that there is an irrational prescribing patterns by most physicians in Iraq.

Table1: Pharmacists opinion about the effect of medical representative on physician's prescribing pattern

Question	At most time	At some time	Not at all	P Value
Question (1)	24 (67%)	11 (30%)	1 (3%)	< 0.001
Question (2)	26 (72%)	10 (28%)	0 (0%)	< 0.001
Question (3)	27 (75%)	9 (25%)	0 (0%)	< 0.001
Question (4)	27 (75%)	7 (19%)	2 (6%)	< 0.001
Question (5)	17 (48%)	12 (33%)	7 (19%)	0.124
Question (6)	26 (72%)	10 (28%)	----	< 0.001

DISCUSSION

This study showed that drug promotion through the interaction between medical representatives (MRs) and physicians result in a significant increase in prescription of promoted drug specifically after the MRs attendance to physician's clinic, similarly it was found that in many other countries physicians were influenced by pharmaceutical companies strategies to change their prescribing patterns [8,9]. This increase in the prescription of promoted drug can be explained by an inducement effect, which may be either scientific inducement which based on clinical evidence or gift inducement, but since this study showed that the prescription of promoted drug declined by absence of medical representative for long period of time so it can be concluded that gift inducement is more effective than scientific inducement with clinical information to influence Iraqi physicians to prescribe the promoted drugs, similarly it had been shown by other studies that prescription of promoted drugs based on inducement effect rather than clinical evidence [3,10].

This study also showed that most physicians change their prescribing preference of particular drug from one company to another by attendance of MRs, regardless whether it is brand or generic, this fact is difficult to be explained by the focus of the physician on patient health by choosing the best drug for each patient, since the same physician is shifting his / her prescribing pattern at most times after MRs attendance from one drug to another, regardless whether the patient is benefited from already prescribed drug or not, so this behavior can be best explained by the effect of inducements like gifts, conferences and overseas trips which may be offered by pharmaceutical drug companies through MRs. In many other studies, it was found that gifts and attending conferences that sponsored by drug companies affect physician prescribing pattern [11, 12], so it can be concluded that gift administration to physicians by MRs [13] is an inducer for changing prescribing pattern.

Collectively the significant consequence of the relationship between MRs and physicians has been often result in a conflict of interest between a physicians' duties to their patient on one hand and the pharmaceutical industry's interest in maximizing the sale of its products on the other hand, which may contribute to over prescription of medications and thus result in negative effects on patients' health and the economy [14, 15].

This study showed that there is a significant agreement among pharmacists, at which the interaction between MRs and physicians lead to irrational prescribing behavior, similarly in other study it was found that drug promotion may lead to non rational prescribing [16].

In conclusion, the interaction between MRs and physicians in Iraq, usually result in non rational prescribing patterns, which may in turn negatively affecting the health of the patients and on the other hand increases the cost of medications.

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