RESEARCH ARTICLE

Perception of resident doctors regarding promotional drug literature

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ABSTRACT

Background: Promotional drug literature (PDL) seems to be the source of information most commonly used by physicians to update their knowledge on existing and new drugs. Aim and Objectives: The objective of this study was to assess the knowledge and attitude of resident doctors about PDL. Materials and Methods: It was a prospective observational, questionnaire-based study. Approved by institutional Ethics committee. A pre-validated questionnaire (google form) was sent among the resident doctors. A total of 50 residents voluntarily participated in the study. The collected data were analyzed as frequencies and percentage. Results: About 88% of residents were aware about term PDL. Only 50% resident doctors felt that PDL provides adequate drug information. Around 78% participants were aware that both forms of nomenclature should be included in PDL. Almost 92% participants had knowledge regarding complete drug information in PDL. Regarding safety information, 70% resident doctors felt that contraindication should be included in PDL. About 48% participants agreed that PDL might influence prescribing practice. Around 78% participants agreed that doctors’ integrity could compromised by accepting gifts from pharmaceutical representative. Conclusion: However, participants had knowledge about PDL but there is a need to educate students at an early stage about ethical guidelines for assessing PDL.

KEY WORDS: Drug Promotional Literature; Knowledge; Attitude; Resident Doctors

INTRODUCTION

The WHO defines promotion literature (PDL) as “all informational and persuasive activities by manufacturers, the effect of which is to induce the prescription, supply, purchase, and/or use of medicinal drugs.”[1] Pharmaceutical companies develop, introduce, and sell many novel drugs on a regular basis. For them to be accepted and used in the healthcare system, the healthcare professionals need to be made aware of the correct scientific information about the drugs and their availability. Drug promotion can be done by various methods such as audiovisuals, drug reminders, and pamphlets.[2] Out of all the types of drug promotions, promotional literature seems to be the source of information most commonly used by physicians to update their knowledge on existing and new drugs. Hence, PDL should contain information that is most important and accurate. In 2005, the pharmaceutical industry in the USA has spent more than 30 billion dollars in marketing and promoting to enlighten the clinicians about their products. Such marketing influences clinician’s prescribing behavior with or without benefitting the patient.[3] For the manufacturers and distributors of these drugs, the sole important focus remains promoting them to prescribers, who are their target audience.[4] Heavy promotion of latest drugs results in widespread prescribing and use before the safety profile of those products is fully understood. Without any evidence on therapeutic outcomes, the older ones would be replaced by more costly and new medicines.[5] “WHO, International Federation of Pharmaceutical Manufacturers and Associations, and the Organization of Pharmaceutical
Producers of India (OPPI)” have laid down guidelines and criteria to ensure drug promotion which leads to more rational prescribing of drugs. It has been observed in a number of studies that a large number of PDLs do not follow the code of ethics. Hence, the present study conducted to assess the knowledge and attitude of resident doctors regarding PDL. The aim of the study is to analyze perception of resident doctors regarding PDL and objectives are to assess knowledge and attitude regarding PDL among resident doctors of a tertiary care teaching hospital.

MATERIALS AND METHODS

After approval from the Institutional Ethics Committee, the study was carried out for a period of one month (September 2021). This is a prospective, observational, questionnaire-based study conducted at tertiary care teaching hospital. A questionnaire was developed focusing on the concept of PDL, knowledge about PDL and attitude toward PDL.

Prepared questionnaire was further analyzed for content validity which was based on the pilot survey conducted in the department. It helps to refine a questionnaire.

Pre-validated Questionnaire along with a consent form about PDL was sent through Google form among the resident doctors. Pre-validated Questionnaire comprised two sections regarding knowledge and attitude. Pre-validated Questionnaire consists of total of twelve questions, eight questions of knowledge (based on to select option), and four questions of attitude (based on five-point Likert scale). Data were collected and analyzed as frequencies and percentages.

RESULTS

A total of 50 resident doctors were voluntarily participated in the study.

Results of analyzed questionnaires filled by resident doctors to assess the Knowledge and attitude toward PDL are given here:

Out of the total resident doctors, 60% were female and 40% were male, among them 84% of resident doctors were in the 2nd year and 16% of residents were in the 3rd year.

Analysis of Knowledge Regarding Questions

Knowledge of the resident doctors toward PDL was assessed on their response regarding the authentic source of drug information, what should be included in PDL, drug information provided by PDL, which nomenclature of drug to be used in PDL, safety information included in PDL, importance of reference and cost in PDL.

We assessed their knowledge about authentic source of drug information is shown in Figure 1. Residents response for complete drug information such as name of active ingredient, name of other ingredient, therapeutic use, dosage form which is shown in Figure 2.

Around 88% participants came across the term of PDL and 50% of resident doctors believed that PDL provides adequate drug information.

Almost 78% of participants had knowledge that both forms of nomenclature including generic name and brand name should be included in PDL, whereas 20% participants believed that only generic name and only 2% participants believed that only brand name should be included in PDL.

Resident’s opinion regarding what safety information should be included in PDL is depicted in Figure 3.

Around 84% of resident doctors knew that references of scientific literature should be included in PDL and 68% of

![Figure 1: Knowledge about authentic source of drug information](image1)

![Figure 2: Residents response for complete drug information](image2)
resident doctors knew that cost and comparison with other drug should also be included in PDL.

**Analysis of Attitude Regarding Questions**

Attitude of the resident doctors toward PDL was assessed on their opinion regarding primary intentions of PDL, PDL influence prescribing practice, doctor’s integrity compromised by gifts, and importance of training to evaluate PDL is shown in Table 1.

**DISCUSSION**

The WHO and OPPI have set standards, globally and in India, respectively, to be followed in regard to the ethical promotion of medicinal products. “The WHO ethical criteria for medicinal drug promotion say that 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,”[8]

Most of resident doctors came across PDL and had knowledge regarding Safety information, drug nomenclature, reference of scientific literature and cost should be included in PDL, but few of resident doctors knew that name of other ingredients should also be included in PDL. Regarding attitude, most of the participants agreed that PDL may be considered as to influence prescribing practice, enhance company sale, doctors integrity compromised by gifts from pharmaceutical representative and training regarding PDL is necessary during undergraduate period.

PDL is a source of information about the novel drugs or newer implications of using the existing drugs. In the present study, majority of the resident doctors were came across to PDL. According to the knowledge of resident doctors, 66% of them felt that PDL is authentic source of drug information, which is contradictory to finding reported by Agrawal et al. that shows 13.26% of participants believed that PDL is source of drug information.[9]

It is important for resident doctors from all areas of specialties to be aware of the guidelines and criteria regarding PDL. According to the WHO criteria, both brand name and generic name are to be mentioned on the promotional literature, in this study, 78% of the residents were aware of it, whereas according to study conducted by Gandhi et al., only 50% of the residents were aware about it.[10]

It is also important that provide name of active ingredient and dosage form should also be included in PDL for complete drug information. In the present study, 92% of participant had knowledge about it, whereas in study conducted by Gandhi et al., 88% of participant had knowledge about it.[10]

It is also important to provide cost in PDL because most of the drugs are not affordable to many patients. In the present study, 68% of resident doctors believed that cost and comparison with other drug is also provided in PDL, whereas in study conducted by Gandhi et al. only 26% of participant believed the same.[10]

Inappropriate usage of newer drug in majority of people leading to various health problems because of there are various side effect produced by drug. Hence, it is important that doctors should be aware regarding safety information in PDL. In this study, 70% of resident doctors agreed that along with ADR, contraindications should be mentioned in PDL, whereas study conducted by Jaiswal et al., 96% of residents were aware about it.

<table>
<thead>
<tr>
<th>Questions regarding attitude</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>PDL may be considered as to influence prescribing practice</td>
<td>8%</td>
<td>48%</td>
<td>32%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Primary intention of PDL is to enhance company sales</td>
<td>14%</td>
<td>44%</td>
<td>34%</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Doctors’ integrity can be compromised by accepting gifts from pharmaceutical representative</td>
<td>28%</td>
<td>50%</td>
<td>12%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Training to evaluate PDL should be incorporated during undergraduate training</td>
<td>22%</td>
<td>56%</td>
<td>16%</td>
<td>0%</td>
<td>6%</td>
</tr>
</tbody>
</table>

PDL: Promotional drug literature
agreed about it. Hence, we can provide training for safety information should be included in PDL for increase their knowledge regarding it.[11]

It is important to provide reference of scientific literature in PDL because through which physicians can get details of the study in-depth regarding mechanism of action, safety information, etc. and that will help them to take decision whether they want to prescribe that medicine or not. In the present study, 84% of participants understood that it is important to provide reference of scientific literature in PDL, while study conducted by Jaiswal et al., only 14% of residents had knowledge regarding it.[11]

Drug promotion may affect the prescriber’s attitude, that may lead to monopoly in particular brand of product and create artificial demand of the product leads to increases price of particular product. A study conducted by Dixit et al., most respondents felt that drug promotion affects the prescriber’s attitude.[12] While in the present study 56% of residents felt the same.

Doctors’ integrity can be compromised by accepting gifts from pharmaceutical representative. Due to this doctor could also prescribe medicine which contain poor quality of raw materials and that may produce harmful and serious side effect in patients. In the present study, 50% of participants agreed that doctors’ integrity can be compromised by accepting gifts from pharmaceutical representative, while in study conducted by Sharma et al. 84% of participants agreed to it.[13]

If we provide training to undergraduate students regarding criteria to evaluate PDL, it will help them to understand and assimilate the information in more critical manner. In the present study, 56% of resident doctors agreed that training to evaluate PDL should be incorporated during undergraduate training, whereas in study conducted by Sharma et al. 75% of participants agreed to it.[13]

Strength of the study is that all resident doctors of clinical department were enrolled for the study as they were frequently come across PDL and their knowledge were evaluated based on the WHO criteria for PDL. There were some limitations to this study. It was conducted at a single center and it would be more beneficial if it is conducted at multiple sites.

Through this study, we can conclude that study participants had good knowledge and positive attitude towards PDL.

CONCLUSION

However, participants had knowledge about PDL but there is a need to educate students at early stage about ethical guidelines for assessing PDL. This will enable them to understand and assimilate the information in a more critical manner. In turn, it will encourage a rational use of drugs with safe prescribing habits.

REFERENCES


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