

## ATTITUDES OF POSTGRADUATE TRAINEES WITH PHARMACEUTICAL REPRESENTATIVES AND EFFECTS OF THEIR GIFTS ON PRESCRIPTION PATTERN AT A TERTIARY CARE HOSPITAL

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### ABSTRACT

#### Background:

Postgraduate trainees have their interactions with pharmaceutical representatives during working in hospitals. Medical trainees are often offered small gifts such as pencils, table calendars, tissue boxes, books and paper weights along with offers of free lunch or dinner as a drug promotion tool. In developing countries like Pakistan the ethical impact of these kinds of incentives and their effects on medical trainees has little data when searched in literature. Our survey about this aspect was done to investigate the attitudes of postgraduate trainees about the physician-pharmaceutical interaction and their unethical offers.

#### Methods:

A part of well validated survey questionnaire previously used in a study was modified a little according to local circumstances was formulated for assessing the behavior of postgraduate trainees towards pharmaceutical representatives was distributed among postgraduate trainees at Fauji Foundation Hospital Rawalpindi after taking the informed consent and telling them the study design and its significance. Questionnaire included various aspects like acceptance of pharmaceutical gifts, sponsored CMEs and conferences fees, and effects of these incentives on drug prescription pattern. Trainees reflections on questionnaire were recorded as agree, disagree or neutral. These responses were later then scored according to the AMSA (American Medical Students Association) guidelines for physician pharmaceutical interaction

#### Results:

Our study included 53 postgraduate trainees out of which 51 trainees returned the Performa (96.2% response). Our data showed that 21% trainees agree that there should be no interaction with drug companies in hospital working hours. On the other hand 79% trainees were in favor of drug companies sponsors for conferences/CME activities in hospitals. Almost one-third of our postgraduate trainees consider minor gifts of drug companies acceptable. As a whole our study results showed important unethical facts about physician pharmaceutical interaction. Furthermore 84.2% of our trainees agreed for revised teaching curriculum and incorporation of guidelines for physicians about pharmaceutical interaction to be taught at undergraduate and postgraduate level.

**Conclusions:** Our study clearly indicates that postgraduate trainees in big tertiary care institutions are not aware of proper ethical guidelines to handle pharmaceutical representatives and are easily caught by their incentives therefore this aspect of learning should be included in their curriculum.

#### Keywords:

Drug companies, Free dinners, Pharmaceutical gifts, Postgraduate trainees.

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#### INTRODUCTION

Pharmaceutical interaction with working doctors in hospital is getting problematic day by day in developing countries like Pakistan. As searched in

previous literature, 85-90% of physicians in USA, Canada, UK and almost all other developed countries are in contact directly or indirectly with pharmaceutical representatives.<sup>1</sup> This relationship is further creating a lot of controversy in developing countries like Pakistan. Pharmaceutical representative are basically salesmen and they approach doctors to present their low quality, old and sometimes even fake research to convince doctors for their products.<sup>2</sup> Besides this they offer various other incentives like free lunch, gifts and recreational trips for family either local or sometimes even international.<sup>3</sup> Pharmaceutical representatives put their best efforts to confuse or corrupt physicians for sale of their products. Various offers given may be free product samples, pens, birthday cards and cakes, expansive gifts and sponsorship of local and international conferences.<sup>4</sup>

Our doctors and postgraduate trainees are not well taught to handle with these kinds of offers and are easily trapped by companies to promote sale of their

products. They forget their primary duty of prescribing better and cheap medication to their poor and needy patients and start writing expansive or low quality drugs in order to compensate for pharmaceutical incentives.<sup>5</sup> There are three key elements which need to be considered while having doctors-pharmaceutical relationship: the justification to accept these incentives, writing product of a particular pharmaceutical company in order to compensate the gifts and looking independently the indications, cost and often fake research presented in favor of product.<sup>6</sup> These unethical offers of drug companies for physicians and its negative influence on drug prescriptions led to need of some ethical boundaries to handle various emerging problems.<sup>7</sup> There is an urgent need to create awareness among physicians and trainees to be careful while accepting incentives of pharmaceutical companies and to guide tertiary care institutions to ban pharmaceutical sponsored CMEs and free dinners. Considering the above

**Table 1: Questionnaire for assessing attitude and understanding of postgraduate trainees towards pharmaceutical industry**

Question	Disagree	Neutral	Agree	P-value
Gifts from drug companies in any form are unacceptable	17 (33.3%)	20 (39.2%)	14 (27.5%)	0.443
Are you comfortable with minor offers like free lunch, penlight, stethoscope, textbook, watches or mobile phone	15 (29.4%)	14 (27.5%)	22 (43.1%)	0.824
Are you going to write a product from a company which gave you some gift	28 (54.9%)	11 (21.6%)	12 (23.5%)	0.429
Trainees should interact with drug companies in hospital	17 (33.3%)	10 (19.6%)	24 (47.1%)	0.449
The research given by company about effectiveness of drug is unreliable	7 (13.7%)	21 (41.2%)	23 (45.1%)	<0.05
Is it acceptable for trainees to get commission on sales of a specific drug	43 (84.3%)	2 (3.9%)	6 (11.8%)	<0.001
Is it acceptable to take sponsors for events/educational seminars in a teaching hospital from pharmaceutical companies	11 (21.6%)	8 (15.7%)	32 (62.7%)	0.597
If is acceptable to pay for the printing cost of prescription pads and file folders of specialists in a teaching hospital by drug companies with their logos and product names on it	19 (37.3%)	8 (15.7%)	24 (47.1%)	0.175
Is there any necessity for making guidelines about physician-pharmaceutical interaction for implementing in hospitals and teaching in undergraduate and postgraduate curriculum	2 (3.9%)	5 (9.8%)	44 (86.3%)	<0.001

background we did a study in our hospital to see the attitude and current practices of postgraduate trainees towards pharmaceutical industry.

## METHODS

This is an observational study done at Fauji Foundation hospital Rawalpindi in December 2017 at four major departments exposed to pharmaceutical representatives. Postgraduate trainees of Medicine, Surgery, Pediatrics and Gynecology were recruited for this study after explaining the purpose of study and taking informed consent. Post graduate trainees in first year were excluded from the study as having immature knowledge of physician-pharmaceutical interaction. Trainees from other departments like Radiology, Pathology were also excluded as not exposed directly to pharmaceutical representatives. A total of 53 PGTs were given a questionnaire out of which 51 trainees returned the Performa for statistical analysis. Both female and male PGTs working at above mentioned clinical departments were included in the study. For assessing trainee's preferences for drug companies at our hospital, we used a previously validated questionnaire with little changes from a study done on postgraduate trainee doctors by Joseph Barfett et al. On our constructed questionnaire, we analyzed the various aspects about trainee's attitude and their exposure with the drug companies with their current level of understanding to accept various incentives from drug companies.

We made a few changes in survey questionnaire as we are having different local norms and social setup of our trainees as compared with international studies (most of our trainees are working honorary or on very less pay during training). These changes were found important as this topic is not well studied in our hospital setting previously. Moreover knowledge of the way our trainees behave with drug companies and its impact on drug prescription pattern is lacking locally.

Our questionnaire comprised nine questions and for maintaining trainee's confidentiality, they were not asked any personal bio data on questionnaire. Our questionnaire was designed to ask about various aspects of trainee's perceptions about drug company's offers and the ways they approach physicians. The task was completed by creating hypothetical statements and then asking about their

potential responses under those circumstances. Our questionnaire comprised of predefined answers of "Agree", "Neutral" and "Disagree". So far there are no guidelines for postgraduate trainees in our hospitals about how to interact with drug companies, AMSA (American Medical Students Association) guidelines were taken for defining trainee's attitude as inappropriate or appropriate. Trainee's response with favorable attitude towards drug companies was given score of 3, neutral response was scored as 2 and response with very strictness towards pharmaceutical companies was recorded as 1. Both male and female trainees were approached in the Fauji Foundation Hospital canteen while they take some rest for tea and snakes. They were explained in group about purpose of study and its significance and were given written consent forms to fill in before taking part in study. All trainees who gave consent were then given study questionnaire and asked to fill in easily in privacy and with freedom and return on next day. After their responses the completed questionnaire was taken and deposited to chief investigator to keep it safe and enter data for analysis. All of the data was entered and analysis was done on SPSS version 16.0 and simple frequencies were calculated for different individual questions.

## RESULTS

Out of a total of 53 Postgraduate trainees 51 trainees returned the questionnaire which lead to a good total response of 97.7%. Among our study participants, 18 trainees were male and 33 were female. In our study response rate for each question also varied among male and female trainees. Table shows the level of perception and acceptance of drug company's incentives and gifts and whether or not PGs should interact with them. These responses indicate that although most of our PGs were in favor of not interacting with pharmaceutical companies and their representatives but they were not sure what type of incentives or interaction is acceptable. Similarly most of them declared that it is not justified for a doctor to accept any "personal incentive" from pharmaceutical representative but they are not aware of exact code of ethics as most of them consider printing of prescription pads and cards from pharmaceutical companies are acceptable. Minor gifts like pens, stethoscope, torches and free lunch were considered ethical by most of our trainees. Moreover, while trainee were

inquired that whether you yourself accept any personal incentive, almost one-third of the participants denied but in many international studies it is evident that many physicians do accept gifts when they are asked indirectly about their colleagues and not themselves. More than 50% of our PGs believe that sponsors for conferences and seminars are acceptable from pharmaceutical industry although there are specific guidelines about accepting these offers. Most of our PGs were aware of the fact that research given by a drug company about their product is untrustworthy and should be independently sought out. Although in our study trainees showed a general increased level of acceptability for incentives, only 23% of participants declared that they will prescribe a product which was being introduced to them in the form of gifts (Details are shown in Table 1).

## DISCUSSION

Previous data suggest that physician's interactions start with pharmaceutical companies to some extent during their teaching years in medical colleges.<sup>9</sup> As more and more clinical based learning is now started in most of medical colleges of Pakistan, students while attending clinical OPDs and wards start exposure to pharmaceutical free lunches and seminars/conferences.<sup>1</sup> Most of these studies on this topic are available from nations with well-organized healthcare systems but data from under developed countries is lacking in international literature. Students and Postgraduate doctor's attitudes toward pharmaceutical interactions need much more awareness and learning about this aspect. Our study results showed that postgraduate trainee's level of awareness for the working with pharmaceutical industry was unclear and they were not sure about the ethical justification for physicians to accept any incentive from a drug company. Previous available literature about this aspect shows that there is difference in level of exposure to drug companies and acceptance of their incentives by trainees between clinical years from year one onwards<sup>10</sup>, but due to small number of trainees we have not studied this effect in our study. In a study done at Agha Khan University Hospital it was found that postgraduate trainees in 5th year of their training were accepting such incentives more as compared to PGs in 3rd and 4th year of training.<sup>1</sup> There was also some difference in the social status of the trainees which may be the reason of increased

acceptability of gifts from pharmaceutical industry as most trainees with good family background or getting good pay are at lesser risk as compared to trainees belonging to poor families or doing honorary training due to deficient training slots.<sup>11</sup>

Unfortunately in Pakistan, there are no guidelines of Government rules to control the pharmaceutical promotional activities and the level of acceptable interaction of physician with drug company representatives in order to control the influence on attitude and prescription pattern of physicians. Approximately 90% of doctors worldwide believe that drug promotional activities have a definite impact on prescriptions for patients.<sup>12</sup> Regarding this study about 44% postgraduate trainees believe that information provided by drug companies is not trustworthy and must be independently sought out from other sources rather believing on their fake research.

All over the world this is a well-known fact that participating in pharmaceutical funded conferences/local meetings and traveling abroad for international conferences or recreational trips is followed by a much increase in prescription pattern of that company's medication.<sup>13</sup> In our study it is obvious that a large number of trainees expressed willingness in accepting drug company sponsors for CME activities. Similarly as shown in literature a general practitioner is also at higher risk for unethical interaction with some drug company as he has left teaching and learning about ethics a long time ago and now belongs to common general public which is not well aware of promotional tools of drug company's products.<sup>14</sup> Therefore GPS are easily caught by the unethical promotional tactics by some drug company via contributions for their personal clinics or various fake doctors' societies.<sup>15</sup> Local guidelines should be established to draw limitations and some boundary for these unethical doctors' interactions with pharmaceutical industry and to make it a healthy relationship but keeping physicians within their limits ethically and morally as defined by various associations internationally like AMSA. Many study results in our research have insignificant p-value which might be due to small number of participants involved in our study but this idea will give us a new foundation revealing the fact of a high acceptability of postgraduate trainees for drug companies offers. There should be some immediate attention to make guidelines for this

controversial issue as exact incidence of this unhealthy and unethical relationship in developing countries like Pakistan is so far little studied. There is need to do some study on a large scale with involvement of various institutions from all over the country with larger sample size for verifying these facts and results and also to guide and change attitude of postgraduate trainees towards pharmaceutical industry. There are deficiencies in institutional policies regarding limitations for pharmaceutical interactions with physicians.<sup>16</sup> Since our study was is a simple observational research we can't conclude or comment in a definite way about results of our study but we have generated a new aspect about this problem and recommend further prospective and interventional studies to be done confirm the findings and future concerns are required to clarify such concerns. Large multicenter studies are needed to look into the matter thoroughly about the behavior of postgraduate trainees all around our country by involving trainees from different institutions and from different backgrounds.

## CONCLUSION

Due to a rapidly growing pharmaceutical business in our country and more and more people joining medical profession especially due to private medical colleges there is chance of malpractice if no proper ethical guidelines are taught or implemented in our busy hospitals. Due to a well-known role of pharmaceutical industry in development of new molecules we can't ban their visits and interactions with doctors but there is need to develop an ethical and healthy relationship of drug industry with doctors. Our study results match to some extent with findings from some other parts of the world. Postgraduate trainees involved in our study had poor pre-existing knowledge regarding appropriateness of pharmaceutical dealing showed increased acceptance of gifts offered to them. On basis of our study results it is obvious that every medical college should make and implement guidelines about a healthy physician-pharmaceutical interaction to which postgraduate trainees should be aware of so that our future physicians must be well equipped to handle these problems. More research on larger sample size should be carried out to identify the exact prevalence rate of these interactions.

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