

Exploring the Antecedents and Consequences of Mal-Marketing in the Pharmaceutical Industry: A Case Study of Pakistan

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ABSTRACT

Background: Mal-practices are the unethical marketing practices which are undertaken by mostly pharmaceutical companies to influence the doctors to prescribe their products to the patients.

Objective: This study aimed to identify different kinds of mal-practices that exist in pharmaceutical companies of Pakistan and to inquire how these mal-practices influence the financial and health position of the patients.

Methods: The exploration is based on interpretivism research paradigm with intention to underpinning in-depth realities. Data were collected through audio and video recorded semi-structured interviews from the doctors, pharmacists, and medical representatives of different pharmaceutical companies in Pakistan. Qualitative data was analyzed via NVivo software to explore different themes of the study.

Results: Outcomes of this study demonstrate various kinds of mal-practices by pharmaceutical companies. The research that is reported in this research paper is groundbreaking and innovative.

Conclusion: Findings suggest that pharmaceutical mal practices have ultimate impact on patients' health and their pockets. Clients suffer from prolonged treatment, expensive medication, additional unneeded medicine, health hazards and below standard medication.

Keywords: Medical Ethics, Pharmaceutical Marketing, Mal-practices, Patient Health, Well-being.

INTRODUCTION

Pharmaceutical marketing is not a new concept. It is used for many years by pharmaceutical organizations to boost their sales utilizing many tactics. Pharmaceutical companies are the real followers of Selling Concept in Marketing. [1]

In pharmaceutical marketing medical representatives are used as a direct marketing approach that creates

a link between physician and company. [2] The habit of medicine recommending of the doctor is reliant upon the medical information, relationship with the pharmaceutical industry and persistent connection with them. The prescribing habit of the doctors may change with the help of gifts, international or national CME (Continuous Medical Education), marketing tools like detailing aid, product samples, information

of the product, and expertise of the medical representatives. [3]

Physicians and drug manufacturing companies are equally responsible for mal-practices. However, in some cases, pharmaceutical companies are more responsible for starting mal-practices. But after its beginning, physicians are the main participant for these mal-practices. Because, they are asked to fulfill the personal, financial and professional needs. [4]

The moral requirements highlighted by the World Health Organization (WHO) are that pharmaceutical marketing practices must be ethical, correct, solid, honest and clear. In various countries, organizations do not follow this universal model. Numerous investigations have shown that marketing employees of drug manufacturing companies provide inferior quality, inadequate, unconfirmed, dubious and deceiving claims that comes under pharmaceutical mal-practices. [5]

In Pakistan, mal-practices of pharmaceutical marketing are a serious issue and are increasing day by day because the pharmaceutical industry is growing rapidly. Now, this issue has become real-time violence and our community is suffering from this. Consequently, the issue needs to be addressed. A few studies have tried to address the dilemma from other perspectives in various regions of the world, but this area is neglected, especially in Sub-Continent i.e. India and Pakistan. [4,6]

Just a few studies found, that address only mal-practices but there is no study that addresses how these mal-practices effects on patient's health and patients' pocket. Also, Skandrani and Sghaier [7] revealed that; it will be interesting to study comprehensively the stress of competition on the ethnicity of the pharmaceutical organization and the behavior of their medical representative.

Drug promotion and marketing in South Asia, particularly in Pakistan and India, is not an easy job because companies not marketing their products direct to consumers. In this scenario, the doctor's community is playing the middleman role. Patients directly report to doctors and doctors prescribe medicine. That's why pharmaceutical companies target doctor's community to market their products. [8]

But pharmaceutical marketing and promotions can negatively impact on patients' health and image of physicians. Similarly, relationship building between physician and pharmaceutical companies is very

dangerous for patients. In the resultant of relationship, it will effect on the cost of medicine, quality of medicine and safety in health care. [2]

Medicine manufacturing companies and their representative offers different favors to physicians. Interestingly, most of the time, inexpensive things are provided to remember the name of the organization, such as ballpoints, notebooks and coffee cups with the trade names of products are often circulated in clinics, treatment centers and doctors' offices. [9]

According to a survey, half of the prescribers disclosed that we will prescribe a prominent medicine after attended an event funded or sponsored by the pharmaceutical company. [8] In various detours, the pharmaceutical industry also offers cash and non-cash incentives to physicians. For example, experimental trials, financially arrangement for national and international symposia's and conferences, and arranging the medical camps and providing free dosage to patients and refreshments for doctors. [10]

Salespeople are the focused resource for most pharmaceutical companies, this marketing technique and application means that the medical representative makes a relationship, build rapport and create a link with prescribers with the support of various gifts and materials. The tools used for this practice are brochures of medicine information, literature, samples, gifts, promotional gifts at conferences and workshops in the conference and several other tools. [11]

Pharmaceutical companies directly or indirectly have an influence on targeted physician and medicine prescriber. Pharmaceutical companies push products through direct marketing i.e. one to one marketing. [12] Now direct marketing is at a peak in pharmaceutical marketing. Pharmaceutical representative making a relationship with physician or prescriber through different strategies like gifts, pens, notebooks, dinners, lunches, and educational presentation or detailing products. The relationship between pharmaceutical representative and medicine prescriber having an influence on prescribing habit of the medicine prescriber. [13]

MATERIALS AND METHODS

Research Design

According to Creswell, [14] qualitative research is the process to know the reality, to find the solution and to

gain insight into. Qualitative research is usually comprised of conceptual thoughts and convictions to explore a particular phenomenon. [15,16]

Case study method has employed in this research because the case study method is different in many ways from policy reports and books i.e. it is short, descriptive and popular. Case study method is used for deep, broad and intense analysis. Case study methodology is very suitable when the researcher has flawless cases that need to find and provide a deep understanding of the phenomena. [17,18]

In this study, pharmaceutical companies and patients were approached as a unit of analysis to find out different and common malpractices, and to explore different consequences on patient health and pocket related. [19]

Sample and Data Collection

Data were collected through interviews for the current study. Semi-structured and open-ended questions were used as a tool and protocol for data collection. The nature of questions was asked based on how, which, what, whom. In qualitative research, the researcher mostly used open-ended question for

getting important data. The qualitative researcher used its own instrument and protocol for data collection rather than others questionnaire and instrument. For data collection, the current study has used purposive sampling technique that is very suitable for qualitative research and especially for case study research as per Creswell. [20]

Data were collected from physicians, patients, medical representatives of the pharmaceutical industry and pharmacist from 5 major cities of Pakistan including Lahore, Islamabad, Faisalabad, Karachi, and Gujranwala. Likewise, two authors travelled to different cities in order to collect data. Before moving, authors made appointments from respondents and brief them about video and audio recorded interview. This process was comprised on two months. Sample size and number of interviewees of each city were: 8 respondents were approached for audio and video recorded interviews from Lahore. Similarly, 5 respondents were asked for interviews from Karachi. Also, 3 respondents were interviewed from Faisalabad. 2 from Gujranwala and 1 from Islamabad. Whereas, 1 group discussion from each city, Lahore, Islamabad, Karachi and Faisalabad.

Table 1. Population Demographics.

Sr. #	Gender	Age	Profession	Experience	Location
1	MALE	40-50	General Practitioner	20 years	Lahore
2	MALE	30-40	General Practitioner	10 years	Faisalabad
3	MALE	30-40	Pharmaceutical Representative	8 years	Lahore
4	FEMALE	20-30	Gynecologist	3 years	Karachi
5	MALE	30-40	Pharmaceutical Representative	7 years	Islamabad
6	FEMALE	20-30	Pharmacist	4 years	Lahore
7	MALE	40-50	Medical Officer	18 years	Faisalabad
8	MALE	30-40	Pharmaceutical Representative	5 years	Karachi
9	MALE	30-40	Pharmacist	8 years	Gujranwala
10	MALE	30-40	Pharmacist	10 years	Lahore
11	MALE	40-50	Physician	13 years	Lahore
12	FEMALE	30-40	Pharmacist	3 years	Faisalabad
13	MALE	30-40	Pharmaceutical Representative	5 years	Gujranwala
14	MALE	20-30	Pharmaceutical Representative	4 years	Karachi
15	MALE	20-30	Pharmaceutical Representative	5 years	Lahore
16	FEMALE	20-30	Dermatologist	6 years	Lahore
17	MALE	20-30	General Practitioner	5 years	Karachi
18	MALE	20-30	Pharmaceutical Representative	2 years	Faisalabad
19	MALE	30-40	Gastroenterologist	7 years	Lahore
20	MALE	20-30	Pharmaceutical Representative	3 years	Karachi
21	Both	20-50	Patients (Group Discussion)	N/A	Lahore
22	Both	20-50	Patients (Group Discussion)	N/A	Islamabad
23	Both	20-50	Patients (Group Discussion)	N/A	Karachi
24	Both	20-50	Patients (Group Discussion)	N/A	Faisalabad

Conceptual Model for the Study

Figure 1 illustrates the conceptual model of this study. This model shows that mal marketing practices, which we explored in detail, that is most potential and having impacts on patient's health and having impacts on patients' finance.

Figure 2 showing the percentage of the targeted sample: 40% physicians, 40% medical representatives and 20% pharmacists.

Figure 3 illustrating the segregation of targeted population citywide: 40% Lahore, 25% Karachi, 15%

Faisalabad, 10% Gujranwala and 5% Islamabad. Moreover, 1 patients group discussion from each city except Gujranwala.

Data were collected through 20 audios, video-recorded interviews, and 4 group discussions. The method of data collection was significantly dependent on the researcher's ability. Ability is a skill that able to a researcher to ask clear and relevant open-ended questions. [20]

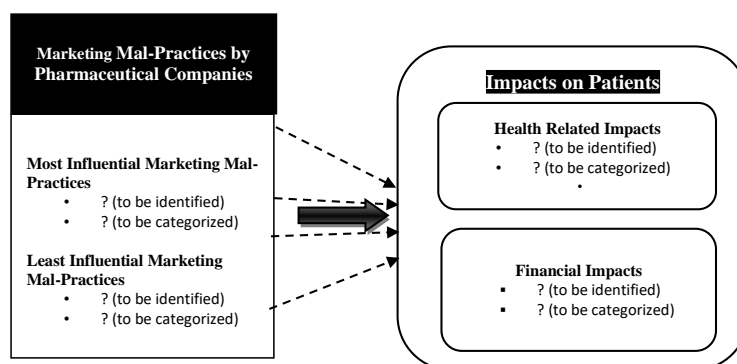


Figure 1. Conceptual Illustration of the Study in respect of Model.

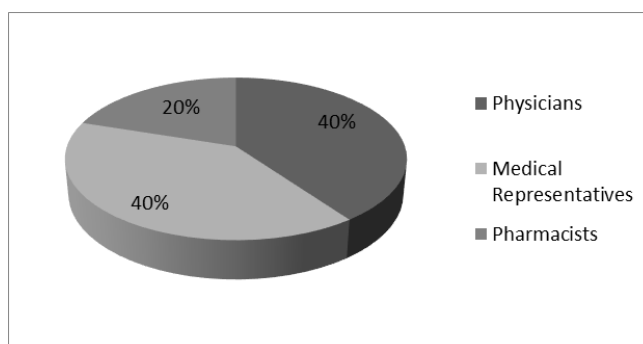


Figure 2. Sample Size Representation.

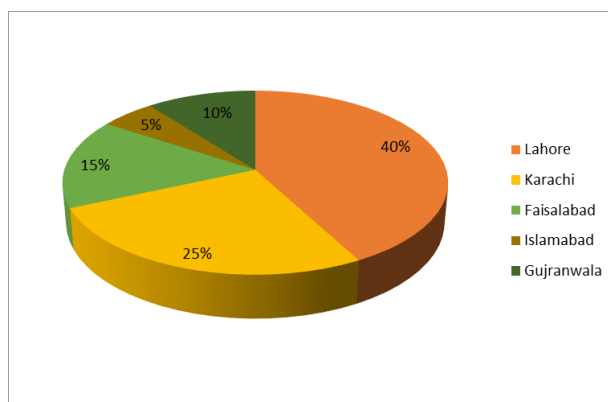


Figure 3. Citywide Disunion of Respondents.

Data Processing and Analyses

Data were analyzed through thematic analysis. The thematic analysis contains three steps; first, transcribe the data and convert recorded form into textual form. Secondly, coding the information and third, data processing. [21] NVivo 11 software was utilized in this qualitative research for data processing and data analysis. In the field of qualitative research, the usage of NVivo is growing very rapidly. NVivo can do qualitative data analysis more proficiently and neatly. [22,23,24,25]

RESULTS

The results of the study are in the shape of hierarchy charts. Generally, a hierarchy chart is a graph that displays information as an arrangement of settled rectangles of shifting sizes. For instance, the sizes of the rectangles are showing the data of nodes. More data in nodes mean more size of the nodes. Similarly, less data means smaller sizes of the nodes. All nodes taking space in the graph depending upon the sizes of the nodes.

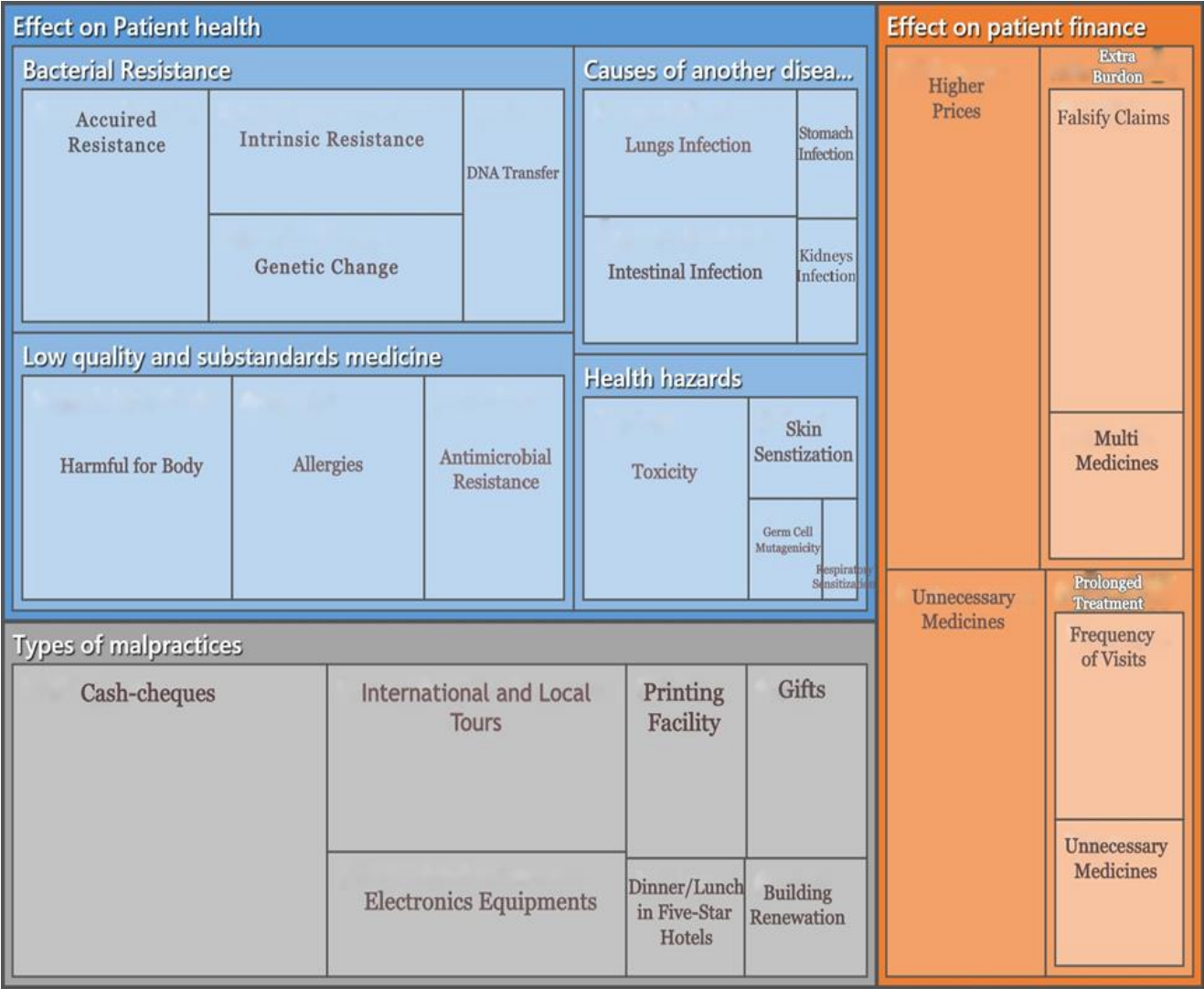


Figure 4. Hierarchy Chart for Findings of the Study

Figure 4 showing the result of the study. This hierarchy chart fulfilling all the objectives of the study and giving us major types of malpractices, effects on patient health and the effects of patient finance.

Word Tree map



Figure 5. Word Tree Map Showing the Themes of the Study.

Word treemap shows the results and findings in the shape of a tree with twigs, Figure 5 shows the findings of the study through themes of the encircled words with the help of word treemap.

Empirical Model of the Study

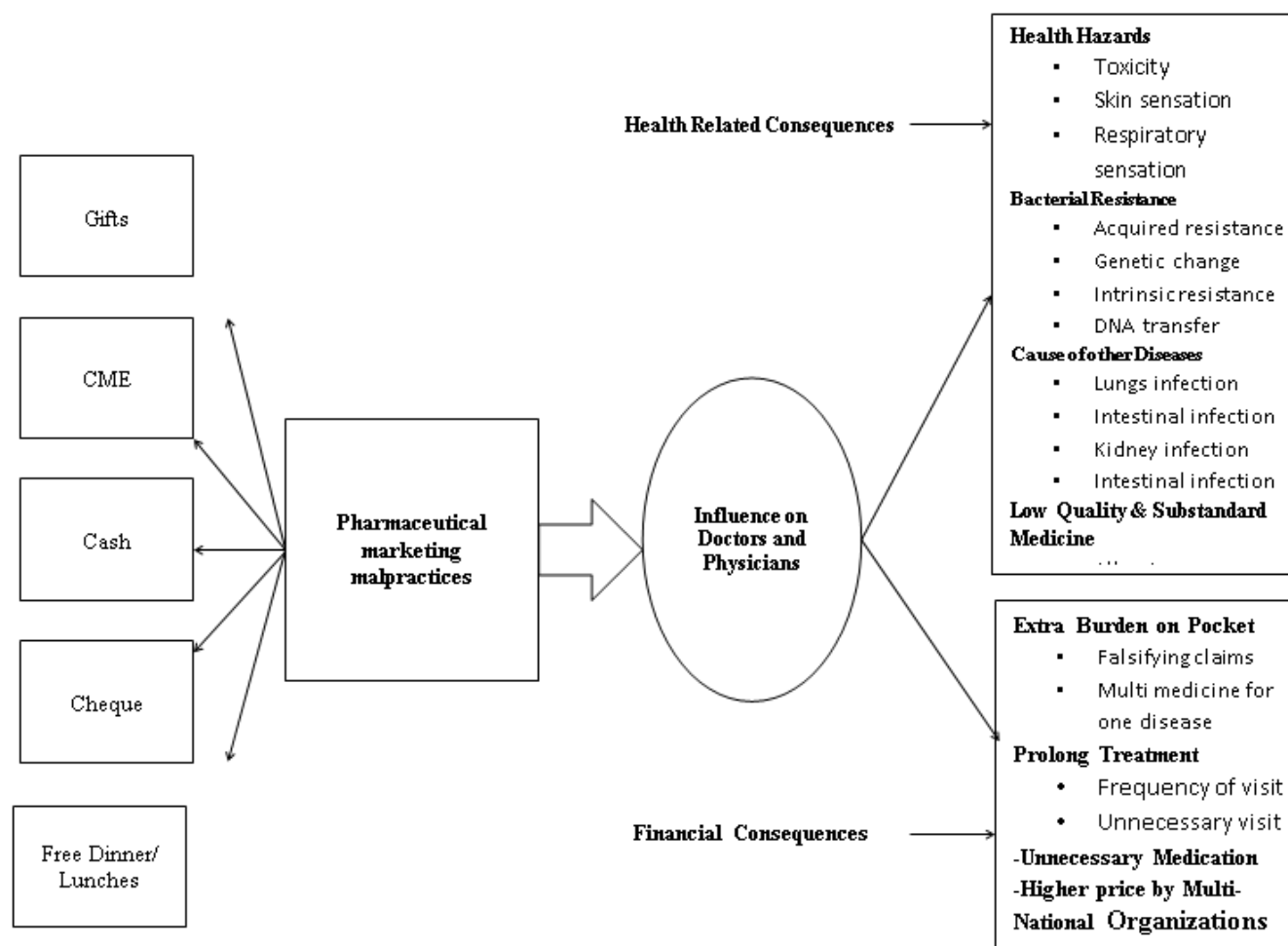


Figure 7. An empirical model of the study.

Figure 7 Empirical model of the study is based on findings. Although, the framework is self-explanatory but in order to avoid any ambiguity, antecedents, and consequences of pharmaceutical marketing malpractices are depicted here. This model gives us a rigorous understanding of this study. Our findings-based model is showing how pharmaceutical companies use malpractices as a tool to influence doctors. Next, what doctors perform in response to the patients' health and finance.

DISCUSSION

Types of Malpractices

The pharmaceutical industry can change the prescribing behavior of the physician through gifts,

commission and direct involvement of pharmaceutical employees. [1]

In Pakistan, cash and cheque is a very common type, that local or franchise companies are used to influence doctors and physicians. The findings of the study showed that cash/cheque can change the prescribing habits of the medicine prescriber. After receiving cash/cheque from pharmaceutical company a doctor or physician bound to prescribe their medicine only.

Now a day's profit or money is our wasted interest, and everyone wants to earn more and more. So that's why the mostly doctors and especially new doctors engage with pharmaceutical companies. Companies oblige doctors in many ways, i.e. commission, advance cash and cheque, foreign tours with family, cars etc. (R6)

According to the findings of the study of international and local tours is much liked by health professionals in Pakistan. After attending pharmaceutical sponsored CME or Tour, health professionals will prescribe their medicine only. Within Pakistan, pharmaceutical companies offering international or local tours to doctors and medical personnel to attend medical conferences to update their knowledge.

Doctor demands a foreign tour with or without a family like New Year tour, international conference, picnic trip with family. (R8)

This study showed electrical/electronics, tools provided by the pharmaceutical industries to doctor's community that have a strong influence on their prescribing. Pharmaceutical companies were fulfilling the needs of the practitioner through electronic equipments. Pharmaceutical companies were offering different types of electronics such as new models of mobile phones, laptops, generators, urgent power suppliers (UPS) and air conditioner.

Pharmaceutical companies dealing with doctors and engaging doctors in many ways like Printing, Cheques and cash, Incentive form, Cell phones offering, Laptop offering, Car offering, Generators, UPS. (R9)

This study suggested that gifts have two types, expensive gifts or less expensive gifts. According to the finding of the study less expensive gifts were used just for making relation with doctors. In another hand, expensive gifts have much influence.

Some doctors prescribe those companies medicines which are fulfilling the unethical needs, like gifts, and foreign tours, lunch, and dinner in five-star hotels with or without family. (R1)

Printing is at the bottom of our hierarchy chart. Its mean printing has very less influence at doctors and physician. Pharmaceutical companies were providing printing facility to doctors just for making a relationship and entering the chamber.

The malpractices that being done in the pharmaceutical marketing are mostly based on the unethical wants. where companies give monetary assistance to doctors and other things like foreign travel, cash, cheques, printing facilities, electronic instruments, surgical instruments, and gifts. (R10)

Patients' Health-Related Effects

Figure-3 fulfilled the objective number two and gives us the result related to health issues of the patients because of malpractices.

Ahmed [26] narrated that the quality of a drug will suffer if a pharmaceutical company creates an affiliation with the doctors. It will be dangerous for patient health.

After pharmaceutical marketing malpractices, doctors prescribed those company's medicines that fulfilled their financial and other needs. Sometimes, doctors dealt with local or franchise companies those are not registered. Even though, they have not quality medicine or standards of their medicine not up to the mark. that's why patients suffering from health hazards. The finding of the study showed some health hazards of the patients, which are toxicity, skin sensation, germ cell and respiratory sensation.

After accepting a business deal with a pharmaceutical company there are few numbers of doctors for prescribing just because of their unethical extra earning. They can prescribe a poor-quality product which is affecting patient health. (R14)

Some local and franchise companies that don't have its own plant or manufacturing facility and just doing marketing. That's why they cannot confirm the source of raw material, they rely only on manufacturer information. Another reason of low quality and substandard of the medicine is, they involved in malpractices and try to decrease cost and maximizing the profit, that's why they are not focused on quality and standards of the products. Findings of the current study suggested some effects of low quality and substandard medicine on patients' health, these effects are allergies, harmful for the body and antimicrobial resistance.

The low-quality medicines do not provide the real benefit or relief to the patient's disease. (R10)

A cause of another disease is also a major issue with patient health because the findings of the study showed that the causes of another disease create different diseases. If a medicine is not standardized or up to the mark, then it will not able to kill bacteria, virus, and germs properly, that's why it can cause other diseases. The findings of the study explored some major diseases which are very common. That is; infection of the lungs, intestinal infection, kidney infection and stomach infection.

Quality fewer medicines create other disease and health hazards. (R10)

The results of the study showed that resistance against bacteria is also a patient health-related issue. Patients suffered from this just because of

malpractices. A bacterium creates resistance against antibiotics if antibiotics don't have a quality. Some local manufacturing companies compromised their quality and standard that is why antibiotic did not kill or inhibit bacteria properly. The findings of the present study showed some types of bacterial resistance, acquired resistance, genetic change, intrinsic resistance, and deoxyribonucleic acid (DNA) transfer.

Bacteria create resistance against antibiotics and other consequences can occur. (R4)

Patients' Finance Related Effects

Figure-3 fulfilled the third objective. The hierarchy chart gave us results regarding patients'

The relationship between physician and pharmaceutical marketing is very dangerous and in the resulting of this relationship, its effects on the cost of medicine, quality of the medicine and safety in health care. [26] The higher cost of medicine is a cause of settlement and dealing between physician and pharmaceutical industry. Pharmaceutical industry offers financial and different types of activities to the physician and prescribers. [27]

The finding of the study suggested us patient will suffer from prolonged treatment just because of the quality and standard of the medicine. Prolonged treatment means the cost of the treatment increased and the patient will bear the extra cost. According to the results of the study frequency of the visit and unnecessary medicine was the reason for prolonged treatment that affects the patients' pocket.

Malpractices affect the patients pocket due to prescribing, quality-less medicine, that increases the treatment duration prolongs from months to years. (R4)

Unnecessary medicine increased the burden on the patient's pocket because some doctors prescribed unnecessary medicine just for increasing the business of pharmaceutical companies and ultimately increased their own commission.

The patient did not get relief due to low-quality medicines. Patients will suffer for a long period of time that's why the cost of treatment will increase. (R10)

CONCLUSION

The major objectives of the current study were to find out the types of malpractices which are undertaken by Pakistani pharmaceutical industries. We found several types of malpractices. In which, some types

are more dangerous and critical for patients' health and patient pocket, like cash, cheque, discounts, commissions, financial obligations, electrical/electronic equipment's and expensive gifts. But on the other hand, printing facilities and inexpensive gifts, lunches, and dinners are less influential.

According to the results of our study, these types have a significant effect on doctors and medicine prescribers. Our study concluded that some doctors and medicine prescribers are like to engage him with such type of activities that offered pharmaceutical companies. The current study contributed to our knowledge that malpractices such as gifts, give and take, electric and electronic appliances, discounts and cash obligation have effects on patients' health and patients' pocket. Health hazards, low quality, and substandard medicine causes of other disease and resistance against bacteria are health-related consequences of the patients. Extra burden, prolonged treatment, high prices, and unnecessary medicine are the finance-related consequences of the patients.

Unfortunately in Pakistan, Pharmaceutical malpractices have been studied generally but neither from marketing point of view nor from the patient's perspective. This study has contributed to our knowledge and shows the types of malpractices in which pharmaceutical companies of Pakistan are indulged. The major contribution of the study is exploring the effects related to health position of the patient and the financial position of the patient. This exploration shows the negative effects of pharmaceutical marketing malpractices on patients.

The findings of the study will play an important role to change pharmaceutical marketing and are expected to play a crucial role to change the thought and perceptions of medicine prescribers. Based on different findings of the exploration, the physician community will come to know about the damages and level of seriousness of the dilemma. They will avoid being an actor in the whole story and will stop contributing in this unethical and immoral activity. That's why this study was very important in the context of Pakistan.

Limitations of the Study and Recommendations

Regardless of the significant contributions of the study to our knowledge, few limitations are to be addressed. Initially, we took only doctors, medical

representatives, patients and pharmacists as respondents. But some other actors could also be added, like a pharmacy retailer or chemist and druggist. Moreover, our respondents felt hesitation to give interviews in the video recorded form. A comprehensive and well-funded study can reveal more interesting facts.

In pharmaceutical marketing, the issue is not just the misuse of the techniques of drug advertising and promotion, but the absence and weak enforcement of rules and rules of self-control also responsible for the marketing of medicines could not be controlled. Pharmaceutical companies and doctors should keep in mind that the patient's health is on priority in all cases. Additionally, pharmaceutical companies should follow ethical practices only.

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