



Research Article

DISPENSING OF MEDICATION WITHOUT PRESCRIPTION IN KARACHI, PAKISTAN

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ABSTRACT

Rational informed self-medication is an essential part of any health care system. This study was conducted to determine the drugs which dispensed without prescription and the nature and extent of self-medication purchases at community pharmacies in Karachi. The data were collected and recorded for different community pharmacies operating for 24 hours, or different timing schedule using a specially designed survey form. Out of the 50 pharmacy surveyed, most of the pharmacies dispensed the drugs without prescription. There were drugs which should be dispensed without prescription including antibiotic, anti-allergic, Analgesics/antipyretics and dermatological drugs. The study findings indicate the need to enforce the regulations governing the sale of drugs and the specification of drugs to be sold using prescription as well as to improve community pharmacy practice, to check the magnitude of self-medication, to check the sale of non-prescribed medicine per day and also examine which class of antibiotic or drug dispensed irrationally. The study also revealed the knowledge of the staff working and the person or pharmacist adherence to regulations.

Key Words: irrationally, anti-allergic, antibiotic, enforce.

INTRODUCTION

Antibiotic resistance is a major public health threat worldwide. There is plenty of evidence that the use of antibiotics is associated with the emergence of resistance.¹

The use of pharmaceutical products is increasing all over the world. Because of very high profits in the drug industry, pharmaceutical companies are spending millions of dollars for advertising, thus stimulating physicians to recommend and use more and more of their products.²

The most common prescription medications dispensed without prescriptions were antibiotics, analgesics/antipyretics. The most common reasons for buying medications without a prescription were that the symptoms were too minor to visit a doctor time saving and minor illnesses for which the participants knew the required treatment.

Deficiencies in the prescribing practice of physicians and in the over the counter prescribing and advice from the pharmacist have also been identified. In many developing countries community pharmacies are the main sources of drugs. The objective of this study was to investigate the patterns of drug supply.³

Pharmacies were considered as small when having limited space with only one counter and a maximum of two professionals selling medicines, as medium sized with three or four attending professionals, and as large with a large selling space and more than four attending professionals. Large pharmacies, that probably have a greater income, more closely followed the prevailing legislation of not selling antibiotics to patients without a medical prescription.

Where over-the-counter sales of antibiotics are prevalent and should be taken into account by programs aiming at achieving a more prudent use of antibiotics.⁴

Assistants in dispensaries are less well-informed about bacterial resistance and the factors determining its emergence even though they dispense the most antibiotics to customers. Pharmacists have theoretical knowledge of bacterial resistance but are less conscious of its impact in terms of public health. Information campaigns on bacterial resistance are highly recommended as regards staff working in pharmacy.⁵

The study ensures that pharmacists are still violating the law, which is leading to a profound malpractice in retail pharmacies around the country. Consequently, regulations should be reviewed and monitored.⁶

MATERIALS AND METHOD

The present study employed a community-based nationwide questionnaire survey in different pharmacy that was conducted on survey basis. It was conducted over a one month period between March to July, 2015, Questionnaire survey. The survey concerned a large number of Pharmacies. For reasons related to the resources, a proper strict sampling methodology was not applied. Basically, the sample consisted of a convenient questionnaire sample that agreed to participate in the survey. The different pharmacy in charge or retailer were contacted personally and briefed about the purpose of the study. On this preliminary visit, oral consent to participate was obtained.⁷

A survey is conduct A 14-item questionnaire was developed by a team of clinical pharmacists, family physicians, and sociologists: 7 questions concerned the demographic data and the other 7 dealt with the patterns of self-medication with antibiotics (e.g. type of antibiotics used, condition for which antibiotic was used, source of information the patient depended on, source of antibiotic supply). Preliminary validation of the questionnaire was conducted with thirty individuals and they

confirmed the clarity of the questionnaire and that the completion time would not exceed 15 minutes

Pharmacies in different areas, asked for either ciprofloxacin or amoxicillin/clavulanate acid without providing a prescription or any other relevant justification. Amoxicillin/clavulanate acid was chosen for our study because it is one of the most frequently used antibiotics, and different analgesics, antipyretic, and anti-allergic drugs. The collaborators were advised to neither insist in case the antibiotic was refused, nor to simulate any specific disease or symptom, in order not to influence the pharmacist in the decision. Collaborators included pharmacist, retailers and staff working in pharmacy, but the identity or occupation was not revealed during the visit.⁸

During the interview the patients were asked about the perceived effects of their medication and any side-effects they were experiencing. In the presence of minor problems the pharmacist encouraged the patients to discuss them with their physician. In case of any serious problems the physician was informed directly. Minor discrepancies between drug intake and the medication chart were not discussed with the patient and no action was taken. If, however, these were serious the patient's physician was informed.^{9, 10}

During the time period of survey, the pharmacy staff was also asked that they ever prescribed or suggests any medication to the patient, or they ever do the counseling to the patient about the dosage regimen at the time of dispensing.¹⁰

RESULT

There is a very interesting picture that comes after such a great effort showing that the demand of medication is increasing day by day in society without any need (outcome= 58%). Analgesic, the class of drug maximally used in society. Metronidazole and Mefnac are the drugs used frequently without prescription. At last less education, less knowledge is the main reason for the non-prescription sale of drug.

DISCUSSION

Treating any ailment by utilizing different medicines either in combination or individually is the most common practice. Medicine is the agent, not always lifesaving but the irrational use of medicine can be lethal or can be cause of new ailment. The irrational usage of medicate is increasing drastically in our society. Our performed activity also highlighted this aspect of society. After conducting a detailed survey program in our society, very shocking results have been observed.

The activity reveals that 58% are the number of people always asks for medicines even if there is no use of medicine for them whereas only 8% of our social group never ask for medicament without prescription and 34% of individuals lies in between them they ask sometimes for medicine; they are either not in favor of utilizing medicine frequently nor against the use of medicine. Moreover, the analysis steps forward to the specification of different drug classes to be dispensed majorly in a day. Presenting that the analgesic is the drug class whose demand is most 74%, to be dispensed in pharmacy on daily basis. Anti-allergics, antibiotics, anti-diabetics and anti-depressants are on demand in pharmacy daily.

On further stipulation, it has been sculptured that the drug metronidazole and Mefnac occupies first position among the drugs to be consumed maximally a day without a help of any prescription while the drugs Disprin, Rejix, arenax, Augmentin, Glucophage, fluoxetine and Glavus can also be misused. Specifying that metronidazole an antibiotic and Mefnac an analgesic are the agents effecting inhabitants because of their maximal irrational use in social circles. Detailing our study, we have found that analgesic is the class of drug to be allotted in

society without any Interlingua rendition. On the contrary antipyretic, anti-allergic and antibiotics are also be dispensed without any formula but with lesser extent. And at last we have been realized that counseling is the most important parameter that should be utilized to minimize this hallmark. Counseling is required differently by different group of people but in our society every age group of people, anyone who belong to any educational background needs counseling. There is a great need of counseling in our society. After conducting survey practice, we have collected data from total 50 pharmacies from which 32% individuals /dispensers were identified as matric, 38% individuals /dispensers were intermediate and 30% individuals /dispensers were graduates on educational level. This pictorial presentation has been designed from 100% data. Counseling have been done out of these 50 pharmacies 34% definitely do counsel their all patients either they may belong to any educational background, 44% there is 50-50 counseling. Means sometimes they do counsel sometimes not. But in 22% there is no any counseling. At last depending on nonprescription sale of medicines new picture has also been seen. Showing 5%, 10%, 25%, 50% and >50% non-prescription sale of drugs from 50 pharmacies. There is further more revelation that from these 50 pharmacies: 18% pharmacies have 5%, 28% pharmacies have 10%, 36% pharmacies have 25%, 36% pharmacies have 50% and 2% pharmacies have more than 50% sale of medicines without any physician formula.

There is a lack of awareness in our society that metronidazole is an antibiotics large number of people doesn't know that metronidazole is an antibiotic. The person work in pharmacies is less informed than the pharmacists as regards bacterial resistance and the factors involved in its emergence. All the pharmacists and the person work in pharmacy interviewed in the study showed a good theoretical knowledge of bacterial resistance. However, the group meetings revealed that the risks of emergence of bacterial resistance in the case of antibiotics being dispensed without a prescription, and the threat of this resistance in terms of public health, were less perceived by the pharmacists.

CONCLUSION

Metronidazole and Augmentin is frequently dispensed without any prescribing order by Physician, i.e. Prescription. They are used in our society in such a way that they belong to the class of OTC (over the counter) Medicine. The reason behind this is the lack of awareness and no rule and regulation is followed by different pharmacies in our society.

Drug is a useful agent if up taken properly but it can also cause severe troubles if misuse. Using a medication for a reason other than the purpose it was prescribed or intake a drug not prescribed to a person, this is called a misuse or abuse of drug. It can also include taking a drug in way or at dose other than the suggestion of a health care professional. This usually occurs when an individual wants a quicker therapeutic outcome from a drug like sleeping pills, when person aims to get high also includes in misuse of medicinal agent. Like the desire of a person to attain more pleasing effect by taking more dose than the prescribed one. It includes abuse as the person distinctly aims for pleasing response. Similarly, if any individual is devoid of sleep after intake of single sleeping pill, he or she may take another pill after an hour later considering that it will be effective, this also represents drug misuse. Generally, people offer the drug to be most commonly used in headache to a friend who is in pain. These illusions are of drug misuse even though these people do not desire to get high from drug but they are using medicament without following any medical instruction, they are treating themselves without any direction from health

care provider. The intentions of a person don't matter, irrational usage of medicament is lethal and malevolent for life.
Demand of medication without prescription

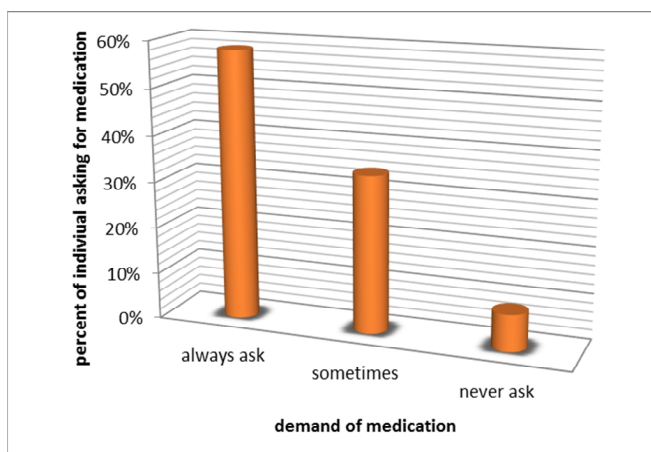


Figure 1: More individuals demanding for medications without prescription

Class of drug mostly dispensed in pharmacy

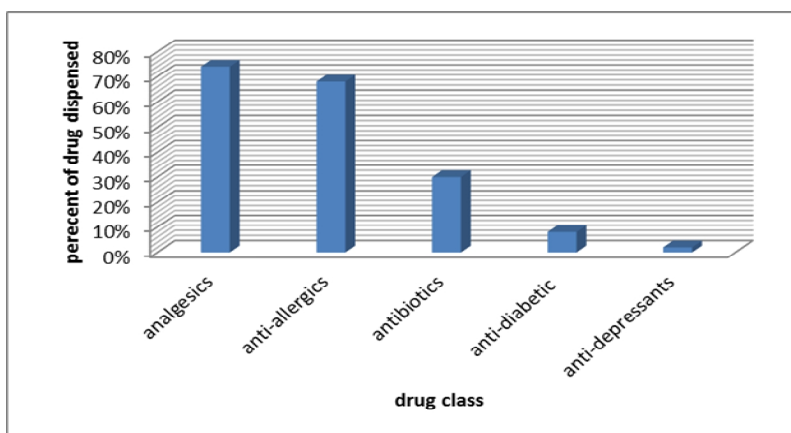


Figure 2: Demand of drug class that usually dispensed daily.

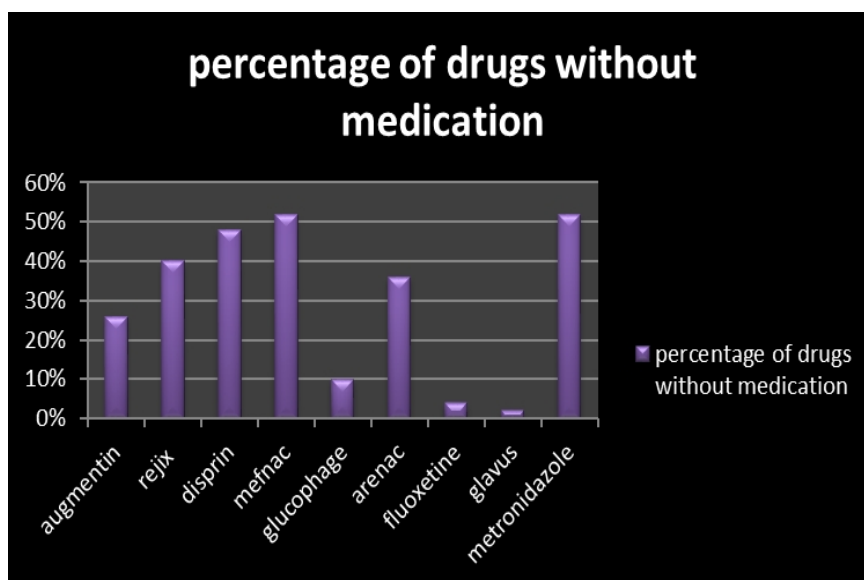


Figure 3: Per day dispensation of drugs in which major dispensed drugs are mefnac and metronidazole.

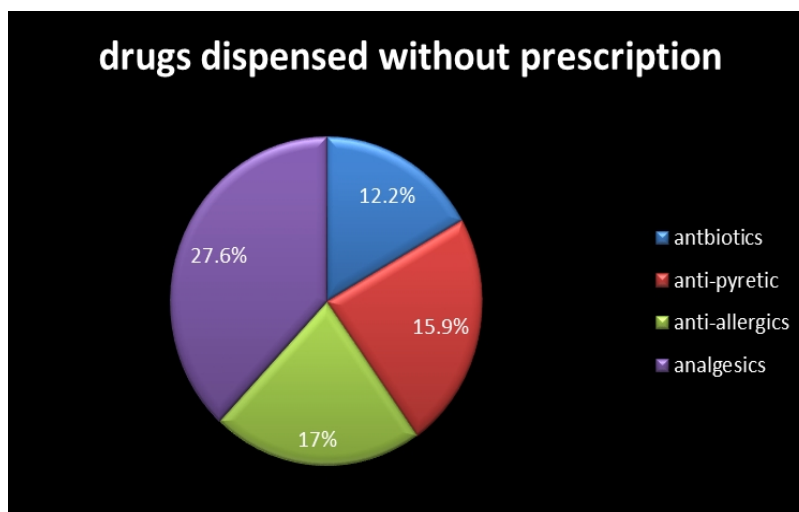


Figure 4: Percentage of drug class dispensation per day and analgesics are majorly dispensed.

Causes of irrational dispensing

No. of pharmacies (N) =50

Table 5: Percentage of causes of irrational dispensing that can adverse impact in society.

QUALIFICATION						COUNSELING						DISPENSING WITHOUT PRESCRIPTION									
Metric		Intermediate		Graduation		No		Yes		Some time		5%		10%		25%		50%		>50%	
No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
16	32	19	38	15	30	11	22	17	34	22	44	9	18	14	28	18	36	09	18	01	02

For the reason that the intake of drug other than the prescribed way can cause parlous consequences that are not expectant to the individuals. It is very necessary to eminence that all the drugs are able produce adverse effects, but the associated risks can be handled through the help of health care professionals.

Thus, the benefits outweigh the risks when the drug is taken as directed. However, when a person demands a drug without prescription there is no medical oversight of the risks. Respiratory depression is the most common cause of person's decease from drug abusing mainly analgesics. Withdrawal symptoms increase B.P and many other are the outcomes experienced by any individual if he/she is continually in taking different medicines without any health care provider guidance. This risk also increases they are consuming with combinations or with alcohol. Moreover, sometimes people may enjoy the experience of a drug once prescribed, he/she will more often use that drug. Yes, the most serious aspect of irrational drug use is drug dependence. The drugs more easily accessible at home can easily be taken by person with more dose than the recommended dosing, can be used other than the prescribed therapeutic condition. Usually the euphoric responses that are produced by most of the medical agents are the reasons why individual utilizes drug more than its prescribed duration of treatment. There is wrong belief in society that the drugs are safe high, but actually the drugs also have perils and these perils can be managed by proper guidance and help of health care provider. The use of drug without prescription is prevailing and it must be considered.

The usage of medicinal agent without help of any medical formula is more often being carried by variety of people, of different age group, different educational background, different mental level and different professional level. Yes the health care providers must counsel patients regarding complete warnings enlisted on drug monograph that has been prescribed. The medical guide will be useful to provide entire information about the drug in a more simplified language present in pharmacies. It

is the duty of pharmacist to provide medicine guide to a patient or a person who comes to pick medicine. As FDA has recommended the vigilance of patient when it comes to matter of their health, reciting all information and enquiring some questions are an ideal practices. For instance, a person may not realize that he/she may develop drug abuse especially if he/she is using the drug for the first time until and unless health care professional will provide him/her all information, consequences regarding the use of medicine. Yet counseling is playing a very essential role in controlling such a prevalence in society. The compulsive use of drug or lack of performing daily activities without taking medicine also includes misuse of drug.

At last it is the responsibility of health care professionals, pharmacists to assist patients not to share their medications in friends and family. It is not only a precarious practice health wise but also prohibited by law. Key to prevent this hallmark includes: be informed about the effects of drug to be dispensed, be wakeful, know what medicines your loved once are using and observe any sign of change in behavior, if you are a patient of any medicament that have abuse potential then must use it as directed. Sharing of drugs must not be practiced and storing of drug properly. Disposing off drugs should be made properly after they are no longer any needed. If you don't have any specific information for disposing your medicine than disposed it off by mixing it with undesirable substances, placing in trash after sealing in any container. By ensuring such practice, the society can be prevented from a great hallmark prevailing in society due to such irrational usage of medicament. In our society we have an extreme need to educate, counsel and promote people the consequences non-prescription sale of drug, the safety steps to prevent and inhibit such sale.

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