

Statistical Study of Self Medication with OTC and Antibiotics in three major cities of Pakistan

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ABSTRACT

Aim: To discover the frequency of self-medicine with antibiotics/OTC amongst population of 3 metro cities of Pakistan (Lahore, Multan, and Islamabad).

Methods: As we realize that antibiotic resistance has the ability to have an effect on humans at any level of life, in addition to the healthcare, veterinary, and agriculture industries, making it one of the global's most pressing public health issues. There are a couple of motives for resistance and the maximum not unusual are self-medication and pharma industries antibiotic wastage without remedy. The survey used was primarily based on a cross-Sectional examine that's used to collect data on a populace at a single factor in time.

Results: The material required for this survey covered Performa containing a list of questions concerning self-medicinal drug with OTC drugs and antibiotics. One hundred patients from every metropolis have been interviewed in line with the Performa/questionnaire.

Conclusion: This survey indicated want for energetic involvement of health care experts, specially physicians and pharmacists, in educating and counseling the populace approximately the safe utilization of medication, even though it is hard to eliminate self-remedy practice legal rules can be made approximately the sale of OTC pills and antibiotics so as to maximize the exercise of rational use of medication.

Keywords: Antibiotics, Prescription, Health Care, Rational, Wastage

INTRODUCTION

Near 19th century, the easy access to dangerous and potent drugs has been considerably increased. Drug researches recently have given many synthetic medicines for disease treatment that may lead to a drug explosion¹. Now a days, many drugs as solo or in combination form are accessible and most of them were released for using generally and easily sold to general public without any kind of prescription. The most common drugs sold without any prescription are anti-allergies, pain relievers, cough relieving syrups, antacids, laxatives, tonics vitamins, and much more². Moreover, harmful drugs such as hormones and antibiotics can be prescribed without proper prescription by physician. The sale of controlled drugs as well as over-the-counter drugs without the written prescription from a registered physician may be the leading cause of self-medication³. With respect to WHO; "Self-medication is described as the selection as well as usage of drugs by an individual in order to do treatment of self-diagnosed signs or symptoms"⁴. Self-medication is a way of medicines taking especially labeled and designed for treatment of commonly occurring health related problems without any registered prescription by a physician. This part is highly related to area of concern for doctors, general public and government^{1,4}.

Benefits: many advantages have been associated with usage of self-medication appropriately such as; patients pain symptoms relief in time as well as increased medication access easily, the patients being efficient in resolving his own health care issues and worrying about his health, better utilization of pharmacists as well as physicians knowledge and decreased load over government because of expenditure related to health in treatment of small health related pathologies⁵. Self-medication may help in relieving patient's symptoms but underlying cause still persists. It may leads to some complexities in case if internal disease is being ignored. It may cause big problems like more big desires to increase drugs intake, allergy, poisoning, habituation, its

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dependence, addiction, drug interactions risk, incorrect manner of administration, insufficient dosage, incorrect choice of therapy and stroke etc. In extreme cases negative impacts like anxiety, depression, suicide, interpersonal problems, legal problems, psychiatric hospitalization and medical problems may takes place⁶.

METHOD

After permission from Ethical Committee, this survey aimed to discover the frequency of self-medicine with antibiotics/OTC amongst population of 3 metro cities of Pakistan (Lahore, Multan, and Islamabad). As we realize that antibiotic resistance has the ability to have an effect on humans at any level of life, in addition to the healthcare, veterinary, and agriculture industries, making it one of the global's most pressing public health issues. There are a couple of motives for resistance and the maximum not unusual are self-medication and pharma industries antibiotic wastage without remedy. The survey used was primarily based on a cross-Sectional examine that's used to collect data on a populace at a single factor in time. The material required for this survey covered Performa containing a list of questions concerning self-medicinal drug with OTC drugs and antibiotics. One hundred patients from every metropolis have been interviewed in line with the Performa/questionnaire. This survey indicated the want for energetic involvement of health care experts, specially physicians and pharmacists, in educating and counseling the populace approximately the safe utilization of medication, even though it is hard to eliminate self-remedy practice legal rules can be made approximately the sale of OTC pills and antibiotics so as to maximize the exercise of rational use of medication.

Table 3: Methods for consultation used by people:

Cities	Method of consultation used by people.			Total
	phone	Internet	visiting doctor	
Lahore	8	26	66	100
Multan	82	11	7	100
Islamabad	26	74	0	100
Total	116	111	73	300

Table 4: People who complete their antibiotic course:

Cities	People who complete their antibiotic course?		Total
	yes	No	
Lahore	63	37	100
Multan	74	26	100
Islamabad	62	38	100
Total	199	101	300

RESULTS

Concurring to the information, self-medication with OTC solutions is common in Islamabad as compared to Lahore and Multan. Individuals from Multan encounter more side impacts of OTC solutions. The discussion recurrence with the specialists is additionally less in Lahore and Multan with respect to Islamabad which have more noteworthy recurrence of interview. Essentially individuals from Lahore said they take after more labeled informational as compared to Multan and Islamabad community. OTC drugs are for the most part utilized in three cities for cerebral pain, fever and cough/cold the rates are to some degree same. Other wellbeing issues like GIT issues, sensitivities and joint swelling and torment like joint pain are too the causes for utilize of OTC solutions. Agreeing to the information collected from all the three cities individuals to a great extent consider going by specialists for discussion than calling on phone or online for meeting. The list of to a great extent utilized OTC medications is said in Reference section 1. And the major unfavorable impacts due to their utilization are said in Reference section 3. In case of utilizing anti-microbials individuals from all of the over said three cities visit healthcare experts or specialists for their common sicknesses and strategy of interview are basically embraced is going to the specialists. The completion of anti-microbial course is more predominant in Multan as compared to Lahore and Islamabad where the course completion is less common as compared to Multan. Similarly individuals of Islamabad utilize anti-microbials without medicine. The proportion of utilizing anti-microbial without medicine is less common in Lahore at that point in Multan and in conclusion in Islamabad. Too concurring to the information most extreme individuals of Islamabad utilize anti-microbials measurements concurring to their doctor's medicines. Information from Lahore is additionally comparable to Multan since this is often to some degree comparable but rate from Islamabad is less. But in all the cities a huge number of individuals don't utilize anti-microbial measurements concurring to the doctor's medicine.

DISCUSSION

Self-medication with different antibiotics has been identified as one form of irrational use of medicine contributing to increased healthcare costs, antimicrobial drug resistance and sometimes increased morbidity among the population¹³. Antibiotic resistance not only produce due to self-medications or irrational prescription of physicians, but national pharma manufacture is also the source of resistance. There are over 300 units in Pakistan are manufacturing antibiotics, but they don't have right way to dispose of wastage of antibiotics which may cause serious issues of environment. In this regard some pharma manufactures are taking steps and going to install antibiotic disposal system. There are certain limits of antibiotic wastage in waste water, which must be ensure in control limits. Recently in Faisalabad Saffron pharmaceutical has taken step to install antibiotic disposal plant for their Cephalosporin section, along with Saffron Pharmaceutical also going to start Red line campaign against antibiotic misuse. It will be 1st in Pakistan saffron take initiative to control antibiotic wastage through disposal plant.

One of the components of self-care is Self-medication and in health care setup, it is regarded as primary public health resource system. Self-medication also includes continuing the previous formally prescribed medicine earlier⁷. Usage of drugs as well as its dependency has been increased due to phenomenon of Self-

medication and many of us do it in order to hide symptoms and sign of disease from which we are suffering hence making situation more worse via developing drug resistance and delaying actual diagnosis⁸. Self-medication is common due to availability of drugs easily without prescription. Self-medication is regarded as universal happening trend and globally it has been practiced with diverse frequency. However in case of middle and low income countries, this phenomenon of self-medication has less prevalence⁹.

The point of view of some health experts towards poly-pharmacy, immensely contributed with respect to revealing drugs to the general public and most primarily giving grounds to their reaction on drugs abuse¹⁰.

The opportunity to buy these over-the-counter (OTC) drugs with limited restrictions, does not mean they are not harmful, in fact they are. Over-the-counter (OTC) medicines are those products that can be easily accessible at drugstores and supermarkets. There is a widespread and false idea that since these medicines are available without doctor prescription, they may be less harmful as compared to those that are available behind the counter of pharmacy. The reality, it's unsafe to either abuse².

Antibiotics are regarded as important medication, but in case of self-medication, these are utilized unnecessarily as well as over-prescribed even for minor issues like colds, cough and diarrhea. Antibiotics when taken in more than optimum quantity may leads to its resistance as a result patient faces failure in treatment when he suffers from serious infection in actual reality¹¹. This matter is of big concern for policy-makers with respect to public health. Patient use sub-optimal dosages of medication due to their no affordability of full doses or because of the reason that they lack knowledge with respect to antibiotics complete course. In the regions where dispensing of antibiotic is regulated at optimum level, non-compliance is a common issue with the regimen prescribed. Some People who have less awareness of antibiotics usually cease treatment shortly after their symptoms start disappearing where as other take antibiotics in overdose due to their belief that it might act faster than way¹².

Antibiotics usage as self-medication has been identified as of the contributory cause of irrational medicine usage leading to increase health care expenses, resistance to bacteria and at times increase in morbidity rate among the general public¹³.

The contributory factor that may become source of self-medication include ignorance or lack to access to health care providers, easy availability of drugs as over the counter (OTC) medicines in markets and below optimum regulation practices¹⁴.

Another cause that may leads to of self-medication is the thinking of generalized public that some medicines are able to show effective results since these medicine were prescribed by doctor previously in their lives and were able to show satisfactory results so they again use them without prescription in future whenever they face same situation¹⁵. People are in habit of keeping leftover stocks of drugs at their home and use them again or pass it to neighborhood who asks for that¹⁶.

In 1970s, efforts were made when the World Health Organization (WHO) purposed the ideology of essential medicine usage rationally. The basic concept behind this presentation is that lessens the number of medicines, better would be supply of these medicines leading to better prescription as well as low costs for purpose of health care. Despite the presentation of this concept of essential drug list in more than 100 countries, usage of medicines in whole world still remains increased¹⁷.

CONCLUSION

This survey indicated want for energetic involvement of health care experts, specially physicians and pharmacists, in educating and counseling the populace approximately the safe utilization of medication, even though it is hard to eliminate self-remedy practice legal rules can be made approximately

the sale of OTC pills and antibiotics so as to maximize the exercise of rational use of medication.

Conflict of interest: Nil

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