

Self Medication

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Self-medication is defined as obtaining and consuming drugs without the advice of a physician, either for diagnosis, prescription or surveillance of treatment,¹ resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of ones social circles, or using left over medicines stored at home.² It is an established fact that drugs have to be used with a lot of wisdom and caution, as modern drugs can be very hazardous if used inappropriately.

Al Razi stated that the best state of health is the medication- free state. Socrates said that nutrition ends in medicine and medicine ends in nutrition. Correct nutrition, good sleep in accordance with physiological circadian rhythm and exercise are the best guarantors of good health. Al Razi had further remarked that when you can effect a cure by a regimen of simple remedies, avoid having a recourse to a medicine; and when you can effect a cure by means of a simple medicine, avoid a complex one. Seventy percent of health disorders in children and forty percent of them amongst adults are self-limiting; therefore they require simple measures to be treated.

These principles form the basis of modern life-style therapy; emphasizing prevention of diseases and promotion of health; which should be given utmost importance, so that drugs and other forms of treatments are not required, many of which are not affordable by ordinary people. Unfortunately our Governments do not pay any heed to this aspect of vital health care. William Pens, a renowned physician of the 17th century said "remedy often times proves worse than the disease".

In the olden days, drugs were very simple, yet there were problems arising from their use. Now a days the drugs are like atomic energy, being powerful for evil, as well for good. Iatrogenic disorders (due to drugs) including fatalities are very common,³

even in countries where knowledge and facilities are quite advanced and there is accountability in the form of clinical audit and autopsies.

In our own milieu, the prevalence of iatrogenic disorders is very high due to lack of control on sale of drugs without prescription, poor drug regulation i.e. registration, licensing and other drug related matters, with the result that the markets of Pakistan are flooded with irrational, drugs banned in other countries, spurious, fake and time expired drugs, while many essential drugs including those that are life-saving are unavailable or scarcely available.⁴ There is poor professional competence particularly in the discipline of clinical application of drugs, due to lack of units of clinical therapeutics and clinical pharmacology.

Moreover, there is no therapeutic audit, autopsies or other accountability practices. The writer of this editorial has conducted various studies on the uses of drugs by doctors on patients showing irrational use and misuse of drugs on a large scale.^{5,6}

The risks of drug hazards due to self medication are much higher and leads to numerous problems like the global emergence of multi-drug resistant organisms,⁷ drug dependence and addiction,⁸ masking of malignant and potentially fatal diseases,⁹ hazards of misdiagnoses,¹⁰ problems related to under or over dosage,¹¹ drug interactions¹² and tragedies relating to side-effects profile of specific drugs.¹³ The prevalence rates of self-medication in Pakistan is not known as no scientifically valid study has been done involving different strata of the population. Limited studies carried out on students of Karachi University showed prevalence rate of 76%.¹⁴ Similarly a limited study carried out in urban and rural house-holds of a few districts of Punjab, showed availability of modern drugs in many house-holds.¹⁴

Higher prevalence rates of self-medication have been described in India, Nepal and Bhuttan.¹⁵ A study of responsible self-medication on informed geriatric population in Australia with approved over the counter medicines, for approved clinical indications has been described causing no untoward problems.¹⁵

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In this issue of Pakistan Journal of Medical Sciences, the study by Bano et al on Irrational drug use based on self-medication for some common clinical conditions, in an educated population shows not only high prevalence of self-medication but also misuse/abuse of drugs.¹⁶ This study pertains to clinical conditions, but lacks the participation of any clinician. Therefore, there is an ambiguity in the description of some clinical disorders, like flu and allergy being put under one heading and there is a heading of cough and cold which should be a form of upper respiratory viral infection while there is also a separate heading of respiratory infection! Similarly anaemia, fatigue and general weakness are combined together under one heading, though they could be of widely apart origins. Moreover most of the gastro-intestinal infections occurring in the community are mild self-limited disorders and need a simple remedy, like rehydration salt and not antibiotics. The latter not only prolongs the illness but also creates complications and lead to bacterial resistance.

Likewise most of the respiratory infections in the community are upper respiratory viral infections and are also self-limited disorders needing simple remedial measures and not antibiotics which also precipitate complications, prolong the illness and lead to the problem of bacterial resistance. Furthermore the common cause of cough and common cold is viral or allergy.

In Table-II of the study under discussion, antibiotics like amoxicillin clavulonate, cefixime, cefuroxime and clathromycin have been used which are meant for severe bacterial infections. These antibiotics however, have been used by self-medication and also by primary-care physicians.

The antibiotics polymyxin and bacitracin have been used by over 80% of the population through self-medication, while on the contrary the antibiotic, erythromycin which is a first line therapy against upper respiratory bacterial infections has been used only in a small number of the patients.

It has to be realized that irrational use of antibiotics can cause a serious problem of bacterial resistance as mentioned earlier. An example to illustrate this is of typhoid fever, which in the earlier periods was easily treated with short courses of chloramphenicol, amoxicillin/ampicillin, cotrimoxazole and furoxone, at a cost of only a few rupees. But currently with the misuse of these antibiotics, typhoid bacillus has developed resistance making these antibiotics ineffective

and thus requiring the use of second generation quinolones, at the cost of hundreds of rupees.

Presently with the indiscriminate use of quinolones, as is evident in the indexed study, typhoid bacillus is developing resistance to quinolones, needing prolonged courses of quinolones and many times not responding to them even then and thus needing therapy with 3rd generation cephalosporins, costing thousands of rupees to treat a single patient. The same is the situation with other bacteria-causing respiratory and skin infections, where by the misuse of antibiotics like amoxicillin-clavulate, clarithromycin, cefixime, cefuroxime etc, bacterial resistance is rapidly developing.

It is indeed alarming to note that life saving antibiotics have been used as self-medication in the primary care situation. A drug like paracetamol-dextromethorphan, which has a potential for high toxicity, has also been used by a large number of patients through self-medication.

Diclofenac sodium (NSAID), diphenhydramine, paracetamol caffeine, paracetamol plus triprolidine (irrational combinations) have all been used by a large number of patients as self-medications.

Use of sedatives and tranquilizers are not mentioned in the study, though it is a well known fact that the misuse of these drugs is causing a serious problem of drug dependence and addiction. Furthermore misuse of drugs like diphenhydramine and phenyramine can also cause serious health problems.

Vitamins and minerals too have been used on a large scale. Vitamins when used in mega doses may cause toxicity.¹⁷ Many energy providing food supplements in addition to vitamins and minerals also contain herbs which may cause serious adverse reactions. It is a common misconception amongst the public, that herbs are harmless. There are of course many herbs like quinine, quinidine, digoxin, cinchona and vincona, just to mention a few, which have undergone studies for toxicity, safety and interactions. The results of which are known. While many other herbs, which are in the market, have not undergone such studies and could therefore be dangerous. In the recent warning, issued by European Medicine Agency Commission, cases of hepatic and renal failure requiring liver and renal transplants through the use of non-approved herbs have been described.

Furthermore in our hospitals many patients are admitted with hepatic, renal, bone-marrow and other organ damage, due to the use of "Hikmats

Kushtas" containing crude metals and unapproved herbs.

In order to ameliorate the hazard of drug misuses, following measures are suggested. The registration of drugs should be rationalized. The Drug Regulatory Authority should be manned by competent and honest professionals. Any drug which is registered in the countries with strict control of drug registration; like UK, USA, Canada, Australia, Scandinavian countries etc; should be registered in Pakistan.

The WHO guidelines should be followed and expertise sought from the well known regulatory organizations.¹⁸ Limiting prescription by the level of prescribing, i.e. specialist drugs only by specialist. National Bioethics Committee formed by Federal Government has already prepared guidelines on Physicians interaction with Pharmaceutical industry which should be implemented strictly. WHO's recommended Essential Drugs should be made available everywhere and at all times.

The public should be made aware of the virtues of using Essential Drugs and hazards of using irrational drugs, through the media and other means. Health education should be made a part of the curriculum of school education also. There should be an authority monitoring and regulating the promotion of medicines, to ensure that it is ethical and unbiased.

All promotional claims should be reliable, accurate, truthful, informative, balanced, up to date, capable of substantiation and in good taste. WHO's ethical guidelines (1988) may be used as a basis for developing control measures.¹⁹

Advertising through electronic media, radio and newspaper is adversely influencing and affecting the consumers. This should be checked.

Unethical claims are made of cure of diseases like diabetes mellitus; hypertension and even malignant disorders with unknown medicines both in the print media and electronic media should be curtailed.

There should be provision of adequate health facilities, by the Government so that the patients have easy access to these facilities, thereby minimizing the potential resort to self-medication.

The Government in Pakistan should fulfill their constitutional obligations to safeguard the fundamental rights of the people of Pakistan by providing health care and education facilities to the people of Pakistan. Democracy is all about looking after the welfare of the common man, on the contrary in Pakistan, the policies of the

Governments are based on Elitism. "There are Governments of the elites for the elites by the elites" Standards of education including medical education both undergraduate and post graduate have fallen abysmally low due to mushroom growth of poor quality medical colleges and teachers heavy involvement in their commercial pursuits with consequent neglect of teaching and public health care.

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