



ASSESSMENT AND CATEGORIZATION OF OTC MEDICATIONS USAGE IN RURAL AREA IN GUNTUR

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ABSTRACT

OTC refers to consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment. It always has been a part of normal practice in human life from the ancient times. In developing countries like India, there are an increased proportion of drugs used as self medication compared to prescribed drugs. The study aimed to assess and categorize the usage of OTC medications in rural area in Guntur. A prospective study was conducted in the community setting for duration of 6 months and subjects were recruited based on inclusion and exclusion criteria. A total of 252 subjects were enrolled and relevant data was collected and assessed. Majority of the subjects were using OTC product to get relief from symptoms of fever and their preferred system of medicine was allopathy, reason was found to be economic problem. This study emphasizes that self medication must be correctly taught and controlled and there is an alarming need for promoting appropriate usage of medications in health care system.

INTRODUCTION

Self-medication it is defined as “obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.”^[1] The word self medication history (WSMI) defines self-medication as the treatment of common health problem with medicines especially designed a labeled for use without medical supervision and approved as safe and effective for such use. According to WHO definition (1998), self medication is the “selection and use of medicines by individual to treat self recognized illness or symptoms”.^[2]

However, the practice of self medication can rather frequently have adverse effects, it can generate an additional burden on the system and increase counterproductive out of the pocket expenditure in already impoverished population. Self medication has always been a part of normal practice in human life from the ancient times. Advertisements on television, news papers and other pharmaceutical publications have improved the rate of self medication. In developing countries like India, easy availability of wide range of drugs coupled with inadequate health services resulted increased proportions of drugs used as self medication compare to prescribed drugs.

In developing countries, cold, cough were the most common reasons for non doctor prescription most of these illnesses are treated by self-medication. Antipyretics and analgesics were the most commonly used class of drugs for self-medication. Followed by them are drugs used for treatment of cold, and cough and the anti-microbial. Trend was observed towards homeopathic and ayurvedic system of medicines for chronic illness like joint pains, bronchial asthma, obesity, baldness, more over herbs and homeopathic drugs were considered safe and free from adverse effects, but the risk of possible drug interactions is always with their use. The pharmacist has a multifaceted role to play in facilitating self medication in the society. He has to be a communicator, quality drug supplier, trainer and supervisor, collaborator, health promoter. Pharmacists have a professional responsibility to provide sound, unbiased advice and to ensure that self medication is reported to only when it is safe and appropriate to do so. The pharmacist is ideally qualified and placed to advice on the need to consult a prescriber and that advice given by a friend or member of that person’s family. Pharmacists have the necessary knowledge to advice on safe storage of medicines in the home and on safe disposal of medicines once a course of treatment has been completed or, in case of a medicine, which is obtained for occasional use, when the expiry date has been reached. Pharmacists can also advise that medicines

prescribed for one individual or purchased for the treatment of a specific medical condition should not be used by another person without professional advice first being sought. Pharmacists have a responsibility to report to the person's doctor, the manufacturer and the regulatory authorities for medicines, any relevant information about an adverse reaction encountered by an individual, who may be associated with a medicine purchased without prescription.^[3,4,5,6]

In our society, it is a common practice to treat most illnesses by self medication. Self medication is very common in medical students (pharmacists, doctors, nurses).^[7,8&9]

Complications which may arise due to self medications are allergy, antibiotic resistance, kidney impairment, dependency etc. As excessive use of vitamins could lead to vitamin poisoning and a lot of risks are associated with use of analgesics in Self medication Practice.^[10,11] Self medication prevalence rate in developing countries is alarming that is 92%, prevalence rate in European countries is 68% and in our neighboring countries like in India and Nepal are 31% & 59% respectively.^[12,13&14] Self medication can be attributed by various factors i.e., socioeconomic factors, socio-demographic, easy accessibility of the drugs pharmaceutical advertisement previous medical history left over medicines at home, moreover an emerging source is internet in most educated individuals.^[15] On the other hand self medication can also have an positive impact on the health care if it follows guidelines issued by the WHO as it reduce workload on medical services, help to treat self limiting minor illnesses and cost saving. The World Health Organization has emphasized that self medication must be correctly taught and controlled.^[16]

Major problems related to self medication is wastage of resources, increased resistance of Pathogens, and generally entails serious health hazards such as adverse reaction and prolonged suffering. Antimicrobial resistance is a current problem worldwide particularly in developing countries where antibiotics are often available without a prescription. The reasons for self medication mentioned in the literature are mild illness, previous experience of treating similar illness, economic considerations and a lack of availability of healthcare personnel. The most common medications used for self medication are analgesics and antimicrobials.

Study on self medication shows that it is influenced by many factors such as education, family, society, law availability of drugs and exposure to advertisements. A high level of education and professional status has been mentioned as predictive factor for self medication.^[17,18] Sharma, *et al* (2005) has explained that it is not all conditions of self medication that are not desirable. Self-medication, they observed or the use of non-prescription drugs could be beneficial to patients, healthcare professionals, the pharmaceutical industry and

governments, provided these drugs are used rationally. Apart from community education, safety and efficacy of OTC drugs must be assured, so that these products could be safe even in the event of improper use.

OTC drug, specific efficacy trials are conducted in real self-medication situation. In this respect FDA has strongly advocated that labelling of the OTC drugs should be easy to understand by the consumer and should contain the list of active ingredients, warnings, directions and inactive ingredients. Easy availability of wide range of drugs without prescription from a registered practitioner in the opinion of Sharma *et al*, (2005) is a major factor responsible for irrational use of drugs as self medication, thus resulting in impending health problems (anti-microbial resistance, increased morbidity and mortality) and economic loss. The need for promoting appropriate use of drugs in health care system is not only because of the financial reasons with which policy makers and managers are usually most concerned, but also for health and medical care of patients and the community. There is need for authorities to make the existing laws regarding OTC drugs strong to ensure their rational sale and use. Moreover, specific pharmacovigilance is needed and the patient, pharmacist and physician must be encouraged to report any adverse events. Periodic studies on the knowledge, attitude and practice of individuals engaged in self medication may give insight into the changing pattern of drug use in societies (Sharma *et al*, 2005).^[19]

Self medication is a dangerous practice. Now a days self medication is a part of normal living. People are not bothered about the side effects of self medication. One reason for self medication is the poor living standards. The people are not aware that whether self medication improves personal health or it may even make it worse. And it is a fact that self diagnosis is more dangerous than self medication.^[20]

Headaches, cold, fever, digestive problems like diarrhoea, constipation or acidity are some of the common ailments for which people seek for self medication. When people take pain killers along with a fever pill we are overdosing the body which can cause other problems like acidity or stomach cramps. OTC drugs for a short term can cause allergic reactions also. People feel that an old prescription is alright to follow as the doctor had given it to them for similar symptoms. Friends also influence in choice of self medication. Taking these medications can develop resistance to drugs and there is a need for higher dose.^[21,22]

Self medication can result in a number of psychological health conditions, such as anxiety, depression and bipolar disorders. There are mental conditions which one can suffer due to over reliance on self medication. There are numerous hazards due to self medication. The key hazard is addiction. Not only adults, teenagers are also at risk of self medication. This may leads them to addiction.

As we know medicines are essentially foreign substances to human body and if not used with utmost care they can harm our normal physiological system. Hence, medicines need to be of good quality, safety and besides this should be used rational. If the medicines are used in irrational mode they may prove wide spread health hazards like unsafe treatment, prolonged illness, adverse drug reactions, loss of patient's confidence in health system. On the other hand rational use of medication saves lives, makes sense and saves cents. It limits undesired toxicity and adverse events and maximizes on the benefits that can be derived from optimal use of medications. Patients are encouraged to always obtain advice from healthcare professionals to interpret symptoms of an illness and the appropriate remedy thus helping patients to adhere to treatment through effective and widely available enhancing flow of knowledge and information regarding rational use of drugs.^[23,24&25]

AIM

To assess and categorize the usage of OTC medications in rural area in Guntur.

OBJECTIVE

- To assess the usage of OTC medications

- To identify the medical need for taking OTC medications
- To assess reasons for self medication
- To observe the system of medication preferred

STUDY METHODOLOGY

A prospective study was conducted in the community setting (rural areas around the guntur) for a duration of 6 months period i.e., from January 2016 to June 2016. Subjects of either gender of age above 18 years, willing to participate and answer the queries were included in the study. Subjects below 18 years of age and unwilling to participate in the study were excluded. After enrolling the subjects into study the details on demographic data, regarding the usage of OTC medication, reasons for self medication, preferred system of medication and medical condition for taking OTC products were collected. Then the collected data was tabulated.

RESULTS

A total of 286 subjects were identified and were explained about the study, 34 of them refused to participate in the study. Study was carried out with 252 study participants.

TABLE 1: PATIENT CHARACTERISTICS

| Parameter | No of subjects (N=252) n | Percentage (%) |
|---------------------------|-----------------------------|----------------|
| Age | | |
| 18-30 | 37 | 14.6% |
| 30-50 | 134 | 53.1% |
| >50 | 81 | 32.1% |
| Gender | | |
| Male | 138 | 54.7% |
| Female | 114 | 44.2% |
| Employment | | |
| Employed | 152 | 60.3% |
| Unemployed | 100 | 39.6% |
| Education | | |
| Illiterate | 79 | 31.3% |
| Primary | 106 | 42% |
| Secondary | 54 | 21.4% |
| Graduate | 13 | 5.1% |
| Income level/month | | |
| <10,000 | 155 | 61.5% |
| 10,000-20,000 | 84 | 33.3% |
| >20,000 | 13 | 5.1% |
| Family size | | |
| <3 | 95 | 37.6% |
| 3-5 | 128 | 50.7% |
| >5 | 29 | 11.5% |
| Caregiver | | |
| Parents | 69 | 27.3% |
| Spouse | 168 | 66.6% |
| Relative | 15 | 5.9% |

TABLE 2: MEDICAL CONDITION VS PERCENTAGE OF SUBJECTS USING OTC PRODUCTS

| S.NO | MEDICAL CONDITION | PERCENTAGE OF SUBJECTS (%) |
|------|--------------------------|----------------------------|
| 1. | Fever | 86% |
| 2. | Body pains | 89% |
| 3. | Cold | 75.6% |
| 4. | Headache | 74.2% |
| 5. | Cough | 68.5% |
| 6. | Nutritional deficiencies | 66% |
| 7. | Gastric problems | 53.8% |
| 8. | Diarrhoea | 46.7% |
| 9. | Vomiting | 42% |
| 10. | Stomach pain | 24.7% |
| 11 | Constipation | 18.5% |
| 12 | Minor cuts/wounds | 13.4% |
| 13. | Allergic conditions | 8% |

TABLE 3: NO OF SUBJECTS VS PREFERRED SYSTEM OF MEDICINE

Table 3 depicts no of subjects vs. no preferred system of medicine of which 76.8% preferred Allopathy, 13.5% Homeopathy, 7.7% Ayurveda and 2% Household remedies

| S.NO | PREFERRED SYSTEM OF MEDICINE | NO OF SUBJECTS (%) |
|-----------|------------------------------|--------------------|
| 1. | Allopathy | 76.8% |
| <u>2</u> | Homeopathy | 13.5% |
| <u>3.</u> | Ayurveda | 7.7 % |
| <u>4.</u> | Household remedies | 2% |

TABLE 4: REASON FOR SELF MEDICATION

| S.NO | REASON FOR SELF MEDICATION | NO OF SUBJECTS (%) |
|-----------|----------------------------|--------------------|
| 1. | Economic problems | 62.3% |
| 2 | Lack of time | 20% |
| 3. | Ignorance | 17.7 % |

DISCUSSION

Out of 252 subjects enrolled in our study majority of the subjects were with in the age group of 30-50 yrs and were males, employed, had primary education, income level per month was <10,000, family details were 3-5 in no and majority subjects care givers were spouse. Majority 86% of people were using OTC products to get relief from symptoms of fever followed by Body pains, cold, headache, cough, Nutritional deficiencies, Gastric problems, Diarrhoea etc. 76.8% of subjects preferred to use allopathy, followed by Homeopathy, Ayurveda and Household remedies and majority subjects reasons for usage of OTC medication was due to economic problem, followed by lack of time, ignorance. Where as study done by Gupsta Pet et al in 2012 on “determinants of self medication practices found that prevalence of self medication was 55.92%, most of the people belong to the age group of 18-35 years, common illnesses that lead to self medication are headache, fever, respiratory disease & diarrhea and it also found that socioeconomic status is the major determinant of self medication.^[26]

CONCLUSION

This study concludes that majority of subjects were using OTC medications to treat self recognized illness or symptoms. Pharmacists have a professional responsibility to provide sound, unbiased advice and to ensure that self medication is reported to only when it is

safe and appropriate to do so. This study also emphasizes that self medication must be correctly taught and controlled and there is an alarming need for promoting appropriate usage of medications in health care system.

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