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Research Article

DETERMINANTS OF SELF MEDICATION PRACTICES IN AN URBAN SLUM COMMUNITY

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ABSTRACT

Self medication, a form of self care, is a topic of growing interest among researchers and health policy makers, owing to a plethora of advantages and disadvantages associated with its practice in general population. There is paucity of adequate information about this issue, especially in developing countries, having a preponderance of population in low socioeconomic strata. Hence this cross sectional based study was carried out in an urban slum community in India, to assess the prevalence and practice of self medication and its major determinants. A pretested, semi structured questionnaire was administered to one representative member of each of the 760 households selected by systematic random sampling, after taking informed consent. The prevalence of self medication in the community was 55.9%, with significantly higher prevalence in females, younger age group, and low economic and educational status population. Monetary constraint was the main reason cited by the users, allopath was the preferred system of medicine and the local pharmacist being the main information source. Unhealthy trends of using self medication for trivial, self limiting illnesses and lack of awareness regarding expiry date of drugs were of particular concern. The study highlights the need for urgent educational measures for general public and pharmacists in particular, to improve their knowledge and practices related to self diagnosis and self treatment of minor ailments.

Key words: Self medication, Slum, Self care.

INTRODUCTION

Self-care is a behavioural response of individuals to promote or restore their health. Encouragement of self-care is seen as giving patients every opportunity to take responsibility and build confidence in their ability to manage their own health. Patient empowerment is viewed as a positive step in the development of the relationship between patient and healthcare provider and is considered as an important health policy concept.[1]

An international movement supporting the validity of self care is being witnessed. At the regional conference on revitalizing primary health held at Jakarta, Indonesia, in August 2008, a new definition of Health for All was proposed: "A stage of health development, whereby everyone has access to quality health-care or practices self-care protected by financial security so that no individual or family experiences catastrophic expenditure that may bring about impoverishment". [2]

One form of self-care is self-medication. The Merriam - Webster dictionary defines self medication as, "Medication of oneself especially without the advice of a physician". Self medication is on the rise and a number of reasons could be enumerated for this rise. The shift in the pattern of disease towards chronic ones (from 30% to 80% in 40 years) with attendant shift from cure to care is often mentioned. The inadequacies (failure) of health care system with its misdistribution of drugs, rising cost and the issue of curative stance of drugs are worth mentioning.[3]

The WHO has also recognized the validity of self medication in a variety of settings. In 1995 the WHO Expert Committee on National Drug policies stated: "Self-medication is widely practiced in both developed and developing countries. Medications may be approved as being safe for self-medication by the national drug regulatory authority. Such medicines are normally used for the prevention or treatment of minor ailments or symptoms, which do not justify medical consultation. In some chronic or recurring illnesses, after initial diagnosis and prescription, self-medication is possible with the doctor retaining an advisory role." [4]

The concept of rational drug use is inherent to the issue of self medication. Herophilus, the Alexandrian physician in 300 B.C had famously said that "Medicines are nothing in themselves, but are the very hands of god if employed with reason & prudence."

In several studies it has been found that inappropriate self-medication results in wastage of resources, increases resistance of pathogens and generally entails serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence.[3]On the other hand, if done appropriately, self-medication can readily relieve acute medical problems, can save the time spent in waiting to see a doctor, may be economical and can even save lives in acute conditions. It is now accepted that self-care in the form of responsible self-medication can be beneficial for patients, healthcare providers, the pharmaceutical industry and governments.

However, it is also recognized that self-medication must be accompanied by appropriate health information.

Despite the growing research interest in self-medication, little information has been available about its major determinants especially in developing countries.

Studies on factors influencing the pattern of self medication practice should be of interest to public health practitioners due to its possible deleterious effects especially in societies with high levels of illiteracy. Therefore, this research was carried out to provide practical insights into the issue of self medication in an urban slum community, which represents a socioeconomically and educationally deprived population.

The study objectives were:

1. To assess the extent of self-medication practices in the sampled population of an urban slum.
2. To identify the common causes of illness/ symptoms that necessitate self-diagnosis and self-medication
3. To identify factors influencing self-medication

MATERIALS AND METHODS:

Study design:

It was a cross sectional, descriptive, questionnaire based survey.

Study area and population:

The study was carried out in Malwani, an urban slum community of Mumbai, a metropolitan city in India. It has a population of 110000. It is divided in six geographical areas for administrative purposes. There are two government health posts catering to this population which have the regularly updated records of each household and members in their designated areas. Each household was considered as the study unit assuming that self medication practices are usually similar in all members of the same household.

Sample size calculation:

For the purpose of sample size determination, the formula, $4pq/L^2$, was used. "p" was taken as 34.55% as reported in a similar study conducted by Durgawale PM (1998), "q" was consequently taken as 65.45% (q=100-p). Allowable error "L" was fixed at 90% of "p". This gave us a minimum sample size of 760.

Sampling:

The calculated sample size was divided into six parts for the corresponding six geographical areas, proportionate to population size of each individual area. Within each of the six areas, sample was selected using systematic random sampling.

Operational definitions:

For the purpose of the study, certain operational terms were defined. Self-medication was defined as the use of over-the-counter or prescription drugs, whether modern or traditional, for self-treatment, without prior consultation with a doctor. A doctor was defined as any person who is medically qualified to prescribe medications. It included practitioners of modern scientific medicine as well as practitioners of other healthcare systems. Medication was defined as any substance used for treatment or prevention of disease. It included modern scientific medications as well as medications from other healthcare systems.

Study instrument and conduct:

A pretested questionnaire containing items assessing the practices and determinants of self medication and the attitudes of the sampled population towards it was administered after taking informed consent. Head of each sampled household was requested to participate in the study. If the head was not available, then any other house member above 18 years of age was requested to complete the questionnaire. Help of Community health volunteers was taken to establish rapport with the respondents.

Analysis:

The survey was descriptive and data were summarized as counts and percentages. The chi square test was used to test the difference between proportions. A p value of less than 0.05 was considered significant.

RESULTS:

Out of the 760 representatives of the 760 households sampled, 268 (35.3%) were males and 492 (64.7%) were females. Prevalence of self medication was found to be 55.92% in the sampled population. Prevalence was significantly more in the sampled females (59.8%), than in males (48.9%).

The sample had 257 (33.8%) illiterates and 66.2% literates, majority [399, 52.5%] of the sample having studied upto high school. Majority (69.3%) of the subjects were of lower economic strata earning less than Rupees 6000 (INR)

Table 1: Demographic Details

	All subjects	Practicing self medication	Not practicing self medication	P value
Sex				
Males	268 (35.3%)	131 (30.8%)	137 (40.9%)	<0.05
Females	492 (64.7%)	294 (69.2%)	198 (59.1%)	
Total	760 (100%)	425 (100%)	335 (100%)	
Age (Years)				
18-25	97 (12.8%)	69 (16.2%)	28 (8.4%)	<0.05
25-35	171 (22.5%)	116 (27.3%)	55 (16.4%)	
35-45	242 (31.8%)	134 (31.5%)	108 (32.2%)	
45-55	119 (15.7%)	56 (13.2%)	63 (18.8%)	
>55	131 (17.2%)	50 (11.8%)	81 (24.2%)	
Total	760 (100%)	425 (100%)	335 (100%)	
Education				
Illiterate	257 (33.8%)	160 (37.6%)	97 (29%)	<0.05
Upto high school	399 (52.5%)	211 (49.7%)	188 (56.2%)	
Graduate	90 (11.8%)	49 (11.5%)	41 (12.2%)	
Post graduate	14 (1.8%)	5 (1.2%)	9 (2.6%)	
Total	760 (100%)	425 (100%)	335 (100%)	
Income (Rupees)				
<3000	223 (29.3%)	139 (32.7%)	79 (23.5%)	<0.05
3000-6000	302 (39.7%)	161 (37.9%)	140 (41.8%)	
6000-10000	171 (22.5%)	88 (20.7%)	91 (27.2%)	
>10000	64 (8.4%)	37 (8.7%)	25(7.5%)	
Total	760 (100%)	425 (100%)	335 (100%)	

Practices and attitudes regarding self medication

Majority of respondents practicing self medication cited monetary constraints (40.5%) as the main reason, other reasons being lack of time (19.3%), lack of accessibility to health care facility (6.1%), emergency use (13.1%), and minor ailments (8.8%). Most respondents used self medication for trivial ailments like fever, aches, allergies, cough, and diarrhea. Majority of the respondents (71.3%) used self medication within 7 days of start of ailment. Most respondents procured drugs from local pharmacy (62.4%), while some used leftover old drugs (24.9%) and some from their friends or neighbours (12.7%). For procuring drugs, most of the respondents described their symptoms (57.9%), some others showed old drug packs (13.2%) or old prescriptions (11.3%). Very few mentioned the name of drug (10.6%) or the class of drug they want (7%). Most of the respondents preferred allopathic medicines, either alone (47.3%) or along with drugs of other systems (24.5%). Proportion of people preferring Ayurvedic medicines and Homeopathic medicines were 22.8% and 5.4 % respectively.

The respondents got information about drugs through local pharmacists (42.1%) and previous consultation (25.4%) with a doctor for similar complaint. Other interesting sources were friends (13.2%), television (7.1%) and internet (3.5%). An alarming finding was that only 21.4% of the respondents checked for expiry date of the drugs before using them.

Table 2: Practices Related To Self Medication

	Frequency	Percent
Reason for practicing self medication		
No time/ could not afford to miss work	82	19.3%
Mild illness	37	8.8%
Doctor's clinic too far	26	6.1%
Emergency use/ Odd hours	56	13.1%
Monetary constraints	172	40.5%
Previous good experience with the drug	52	12.2%
Total	425	100%
Symptoms warranting self medication		
Headache/ Bodyache	131	30.8%
Fever	97	22.8%
Respiratory disease	78	18.4%
Allergies	15	3.5%
Gastrointestinal disease	67	15.8%
Others	37	8.7%
Total	425	100%
Request for drugs at medicine shop		
Mention name of drug	45	10.6%
Mention group of drug	30	7%
Mention symptom	246	57.9%
Show old package of drug	56	13.2%
Show old prescription	48	11.3%
Total	425	100%
Source of information of drugs for self medication		
Pharmacist	179	42.1%
Previous consultation	108	25.4%
Friend	56	13.2%
Television	30	7.1%
Internet/ Books	15	3.5%
Traditional healer	37	8.7%
Total	425	100%

DISCUSSION:

In this study the prevalence of self medication was found to be 55.92% which is higher than that found in a study in urban slum (34.55%) by Durgawale PM (1998).[5] However, various studies carried out show a range of self-medication practices between 15% to 80%.[5,6,7,8,9,10] Reasons for wide variations may be due to differences in education, socio-economic status, non-availability of medical facilities and easy availability of drugs.

Highest proportion (43.5%) of individuals practicing self medication amongst the study population is found in the age group of 18-35 years which is comparable to that found in a study by Shankar PR et al (2002) in Nepal (54%).[8] This association is statistically significant. The reasons for higher prevalence in the young population might be the carefree, risk prone attitude of the youth and easy access to a plethora of information.

48.9% of the sampled male population and 59.75% of female population practise self medication which is comparable to the results of a study by Solomon Worku et al (2003).[10] The association between the use of self medication and female sex is statistically significant. The reason for higher prevalence of this practice in women might be their restricted movement outside the house and a secondary status in the household. This leads to decrease in the tendency to take professional help and resort to self medication. Most of the respondents (69.3%) had a monthly income of less than

Rupees 6000 INR. The association between low economic status with use of self medication is statistically significant. Monetary constraints were sighted as the major cause of practicing self medication by 40.5% of the subjects.

Various other studies (Durgawale PM, 1998; Phalke VD et al, 2006; Solomon Worku et al., 2003), too sighted money as the main cause, proportion ranging from 35% to 86%. [5,6,10] As WHO noted, self medication provides a cheap alternative to people who cannot afford to pay medical practitioners. Thus, self medication is often the first response to illness among people with low-income

The commonest illnesses that led to self medication in this study (headache, fever, respiratory diseases and diarrhea) were also reported similarly in other studies.[7,10] The trend of increasing use of drugs for self limiting conditions is noteworthy.

Majority of respondents (57.9%) who practice self medication, request for drugs by explaining their symptoms consistent with other similar studies but contrary to a study by AO Afolabi (2007) where requesting by trade names was most common. [7] Pharmacists act as the most important source (42.1%) of information about drugs for those who practice self medication consistent with the finding of Lal V et al (2007).[9] This practice makes the general population vulnerable to exploitation by pharmacists who tend to sensationalize minor ailments and sell expensive brands of drugs of which cheaper or generic versions are available.

Majority of respondents (71.8%) who practice self medication, prefer allopathic system, either alone or in combination with other systems of medicine which is consistent with the findings of Durgawale PM (1998) and Phalke et al (2006).[5,6] Majority of respondents (71.3%) who practice self medication, do so in the first 7 days of the illness. An alarmingly low proportion (21.4%) of subjects check for the expiry date of the drugs, which is the crux of safe and rational drug use.

As with all self-reported data, results of this survey have the potential for recall bias. It might be more useful and scientific to study practices of people by qualitative research methods such as in-depth interviews or focus group discussions. This study assesses only the practices and attitudes of the consumers involved in self medication. A study assessing the knowledge of consumers about drug use would be an ideal follow up of this study, for better planning of interventions.

This study highlights the urgent need of public education about specific risk/ side effects of self medication and its importance, by mass media and local government authorities. IEC activities should be strengthened to encourage public to avail health services from government facilities which is at a highly subsidized cost. List of drugs which can be dispensed across the counter should be displayed and vigilance should be strengthened on medical stores to ensure that prescription drugs are not dispensed over the counter (without prescription).

Pharmacists should be made aware about the medico legal aspects, consumer protection act and human rights issues regarding self medication. Interventions including developing educational material for the general public and the pharmacists must be carried out, which warrants similar such studies but on a wider and exhaustive scale. Improving communication and introducing a referral system between pharmacists and physicians is an interesting avenue which should be explored. This integration of pharmacy services (community pharmacy) in primary health care system would have a symbiotic effect.

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