



Impact of Self-medication among Urban and Rural Literate Population

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Abstract:

This is a cross-sectional, questionnaire-based study which was carried out among 300 literate subjects of both urban and rural population. The objective of our study was to compare the impact and pattern of self-medication between urban and rural literate population. Three hundred literates with one hundred and fifty each in urban and rural population were provided with a questionnaire containing various questions on the implications, pattern and reasons for self-medication. Data was analyzed statistically using SPSS version 18 for counts and percentage. Respondents in the urban group fell ill more often than in the rural group (33 % v/s 26 %) but tendency to self-medicate was less (71 % v/s 86 %). Use of previous prescription was also less common (67 % v/s 81 %) among them. Incidence of adverse drug reactions was less (17 % v/s 27 %); however, emergencies were more (51 % v/s 13%) among urban population. Self-medication was largely due to lack of time (66 % v/s 47 %) and antibiotics were more frequently used (26 % v/s 7 %). Though lack of time (47 %) was the commonest reason for self-medication in rural population, cost was also an important factor (17 %). In both the groups, analgesics were the most commonly used drugs for self-medication (U = 46 %, R = 53 %). The pattern of self-medication is different in urban and rural literate populations. Adverse reactions including emergencies can occur due to self-medication. Hence, awareness about self-medication and its hazards has to be created among both urban and rural population.

Key words: Self-medication, urban, rural, literate, adverse drug reactions

Introduction:

Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.¹ In India, easy accessibility to various drugs, lack of awareness of ill effects of irrational drug use, aggressive promotion of over the counter drugs by pharmaceutical companies and lack of stringent regulations by authorities has led to increased use of drugs for self-medication.² OTC (over-the-counter) drugs are the drugs meant for self-medication and are of proved efficacy and safety. However, their improper use due to lack of knowledge about correct dose, side-effects and interactions could have serious implications, especially in extremes of ages (children and old age) and special

physiological conditions like pregnancy and location.^{3,4} Self-medication may lead to adverse drug reactions, drug interactions, therapeutic failure and adverse economic impact on the patient and the society in general. It might be due to number of factors like socioeconomic status, lifestyle, ready access to drugs, and greater availability of medicinal products which are available in developing countries.⁵ It is an important issue as far as the health of an individual is concerned. The practice of self-medication must be based on authentic medical information to avoid irrational use of drugs, which, in turn can cause wastage of resources, increased resistance of pathogens and can lead to serious health hazards like prolonged sufferings, drug reaction and drug dependence. Self-medication is now increasingly being considered as a

component of self-care.⁶ On the contrary, if practiced properly, it can be used positively to treat various minor ailments, can save time and money, and can save lives in acute conditions. The World Health Organization (WHO) also has pointed out that responsible self-medication can help to prevent and treat ailments that don't require medical consultation and can provide a cheaper alternative for treating common illnesses. However, it is also recognized that responsible self-medication must be accompanied by appropriate health information.⁷ The self-medication pattern and its implications are expected to be different among urban and rural literate populations. Use of self-medication is highly prevalent in both urban and rural community varying from 32.5% to 81.5% respectively.⁸⁻¹⁰ As very few studies have been conducted in this regard, the present study was undertaken.

Materials and Methods:

A sample size of 300 literates consisting of graduates, software professionals, bank employees, and teachers was chosen with 150 respondents in urban and rural group each. The respondents were asked to fill a questionnaire which contained questions relating to the pattern, implications and reasons for self-medication. Data was analyzed statistically using SPSS version 18 for counts and percentage (Urban v/s Rural). Following questionnaires were used in our study (**Table I**).

Results:

Respondents in the urban group fell ill more often than in the rural group (33 % v/s 26 %) as shown in **Figure I**. Urban population seeks medicines more often than rural population (34% v/s 19%) but they don't stick to the complete regimen compared to rural population (33% v/s 51%) as shown in **Figure II**. Tendency to self medicate was less (71 % v/s 86 %)

Table I: Questionnaire

among urban population as shown in **Figure III**. Use of previous prescription was less common (67 % v/s 81 %) among urban population than rural population as shown in **Figure IV**. Incidence of adverse drug reactions was less (17 % v/s 27 %) among urban population as shown in **Figure V**; however, emergencies to drug reactions were more (51 % v/s 13%) among them as shown in **Figure VI**. Majority of the respondents in both the groups preferred consulting a doctor in case of adverse reactions (shown in **Figure VII**). Although lack of time was considered the main reason for self-medication (66 % v/s 47 %), cost was also an important factor (4 % v/s 17 %) in the rural group and they thought they had more information about medication (17% v/s 30%)(**Figure VIII**). In both the groups, analgesics were the most commonly used drugs for self-medication (46 % v/s 53 %). Use of antibiotics was high in the urban population (26 % v/s 7 %) and use of anti-ulcer drugs was more among rural population (4% v/s 18%)(**Figure IX**).

Discussion:

Self medication is the utilization of medicines by persons on their own without any proficient medical supervision. In developing countries like India, most episodes are treated by self medication due to easy availability of non-prescription drugs. It is a prominent constraint in ensuring the safe and effective use of medicines. It is more likely to be inappropriate without complete knowledge, although it is becoming a routine practice nowadays. Numerous drugs have got Over-the-Counter (OTC) status which was once prescription drugs. Though this may save time and money for the patient, many problems may arise including wrong self-diagnosis, under treatment, drug interactions, adverse drug reactions and treatment failure. Self-medication is widely practiced in many

Questions	Response
How often do you fall ill?	
How often do you take medicines during illness?	
During illness, are drugs self-administered or consulted?	
Do you keep previous prescription and follow the same or do you visit the doctor each time you fall ill	
When self-medicated, do you encounter adverse reactions?	
Did you encounter any emergency due to self-medication?	
What do you do if you have any problem with self-medication?	
Why do you self-medicate?	
What are the commonly self-medicated drugs by you	

Fig

Figure I: Percentage of respondents falling ill

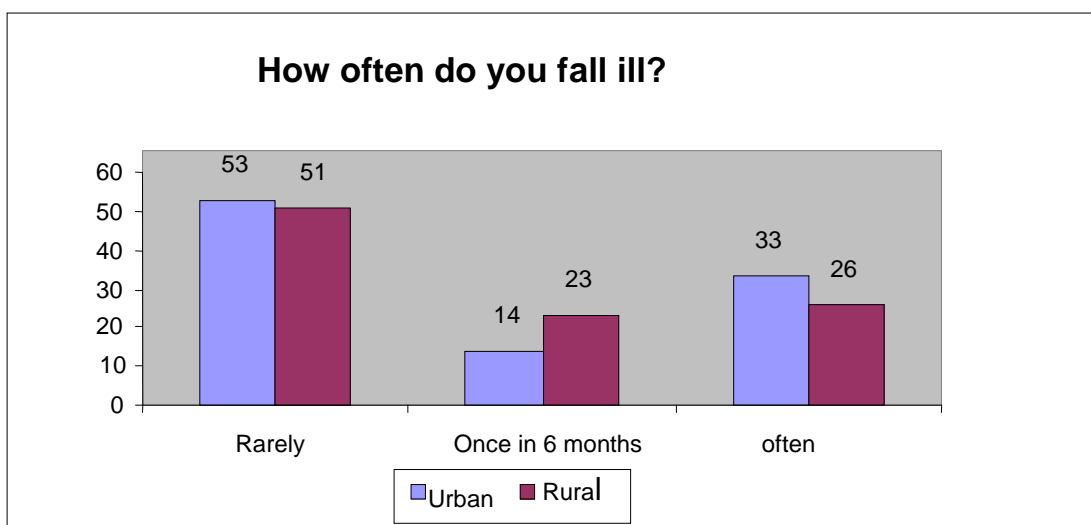


Figure II: Percentage of respondents taking medicines during their illness

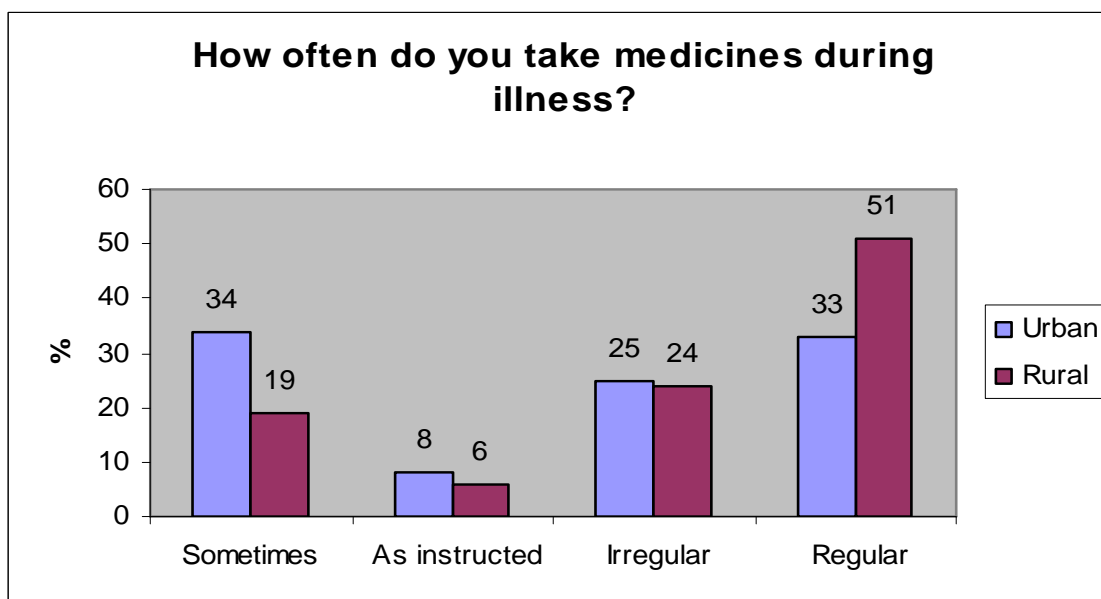


Figure III: Percentage of respondents taking self-medication

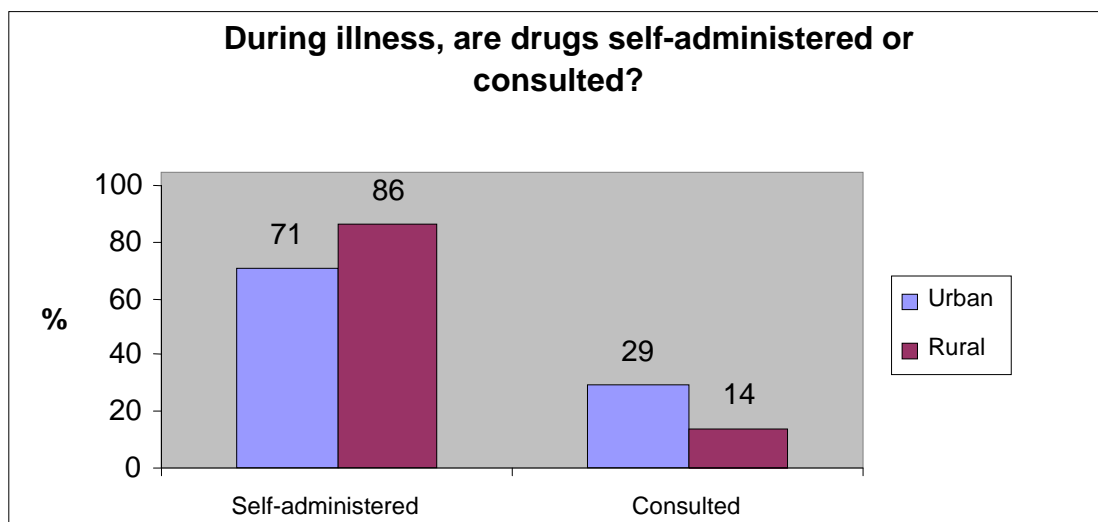


Figure IV: Percentage of respondents taking previous prescriptions

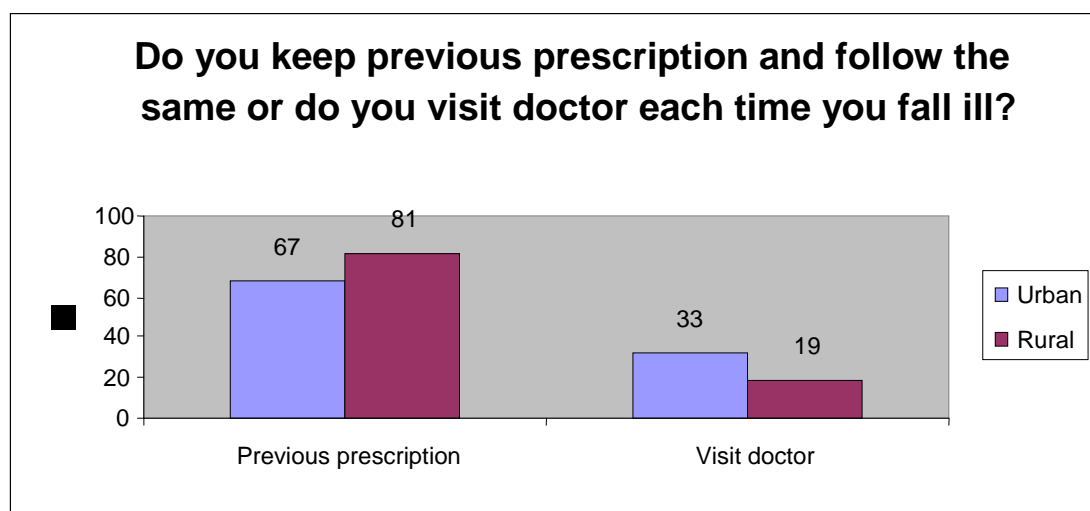


Figure V: Percentage of respondents encountering adverse effects

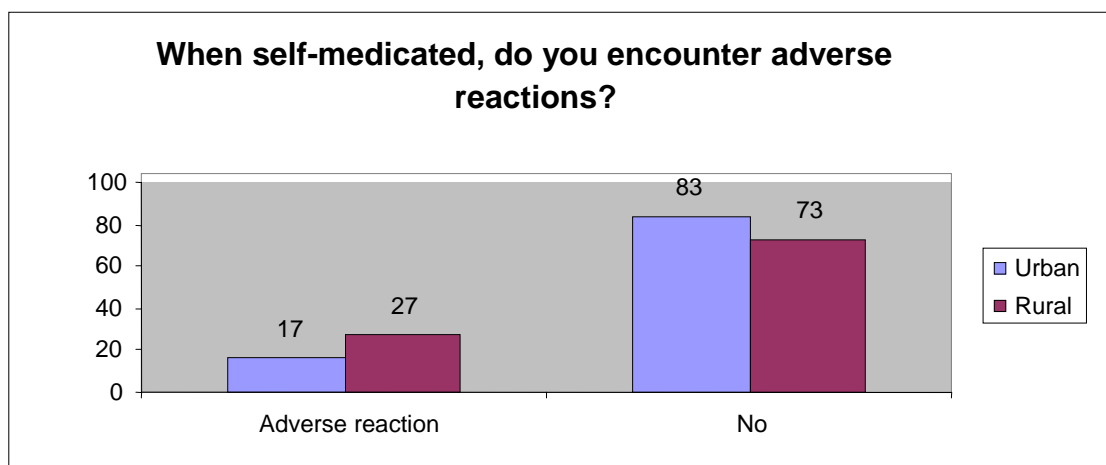


Figure VI: Percentage of respondents experiencing emergencies due to self-medication

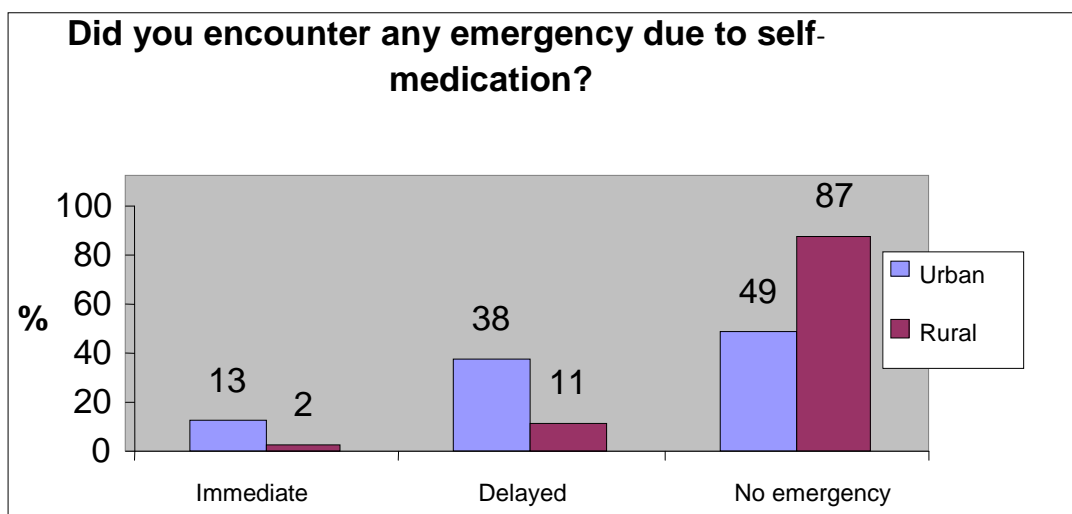


Figure VII: Percentage of respondents visiting doctor in case of adverse effects due to self-medication

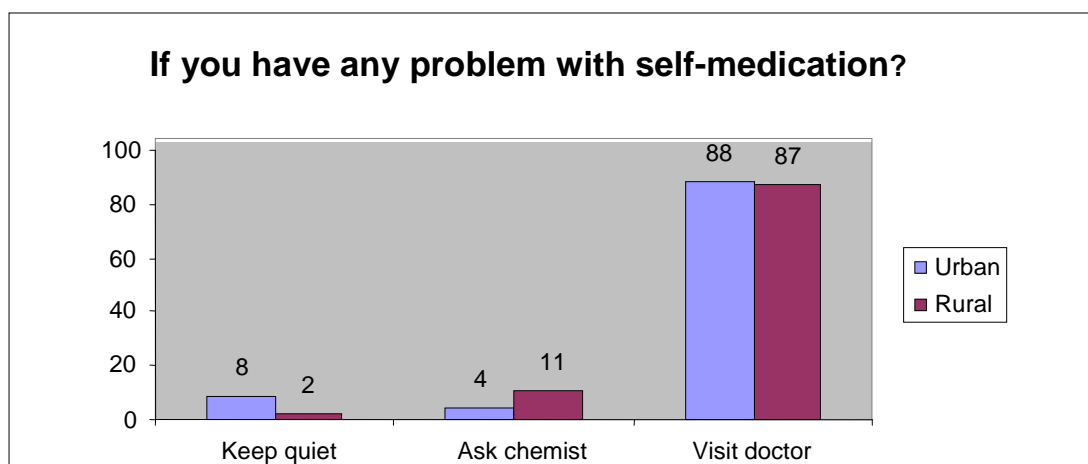


Figure VIII: Reason for self-medication among respondents

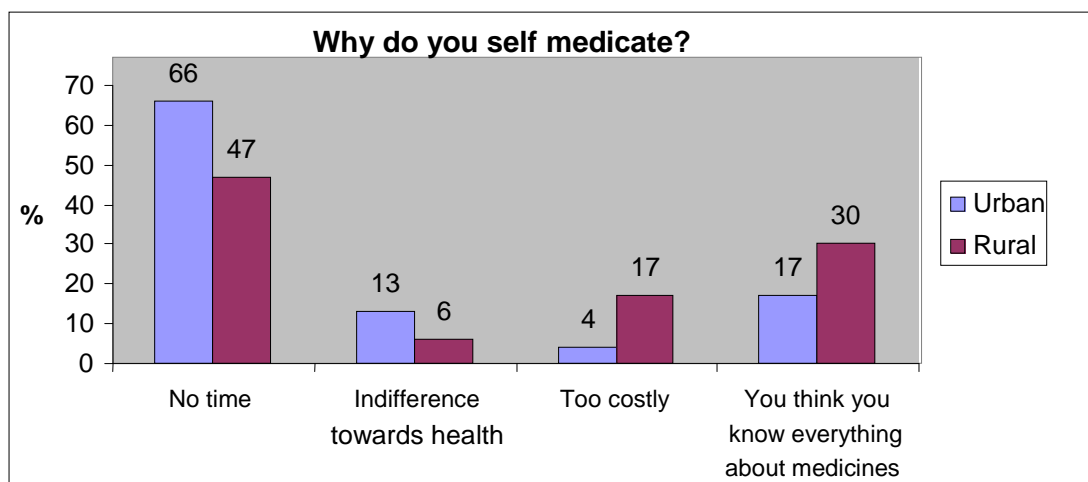
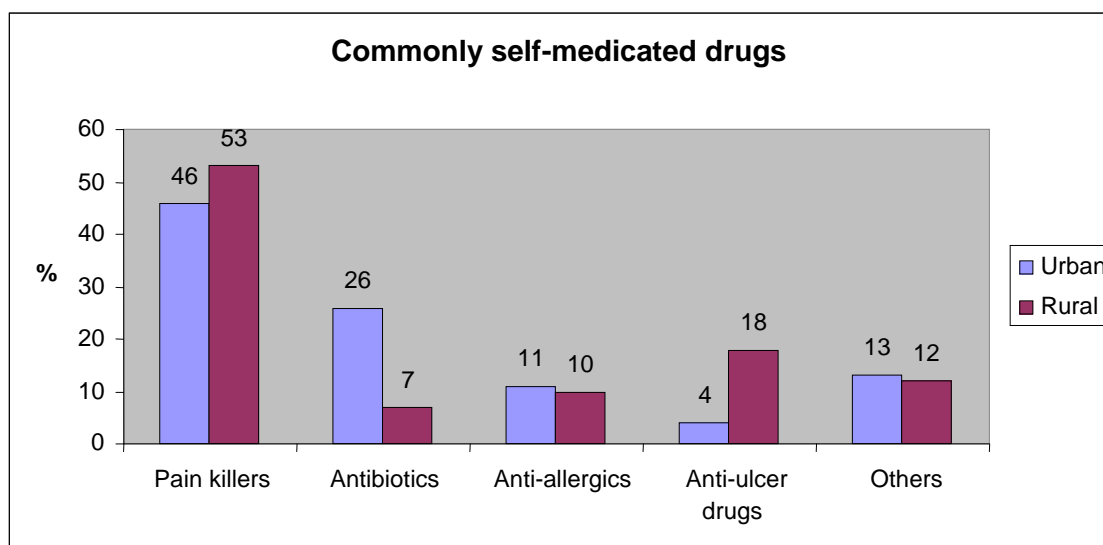


Figure IX: Commonly self-medicated drugs among respondents

developing countries. The practice of self-medication is widespread all over the world, especially urban and educated population.⁹ It is very difficult to compare the prevalence of different studies with present study due to different demographic characteristics, different methodology, and different socio-economic status of rural and urban population. Previous studies have shown that the prevalence of self-medication as 37% in urban population and 17% in rural population in India,¹⁰ whereas 12.7-95% in other developing countries.^{11,12} Analgesics were the most commonly used class of drugs, which is found to be similar to study carried out by Arrais et al.¹³ Antibiotic usage was more in urban group suggesting high rate of infectious diseases in them. This is consistent with earlier studies.¹⁴ Following previous prescription was the most important source of drug information among the respondents. This could probably be due to lack of access to health care facilities. This is consistent with earlier studies.¹⁵⁻¹⁷

Emergencies due to adverse drug reactions were more frequent in the urban population probably due to increased use of antibiotics and newer drugs. This could be due to lack of knowledge about adverse

drug reactions of these medications. Lack of time as a reason for self-medication was more common among urban population indicating their busy lifestyle in cities.

In recent years, the infrastructure of communities has changed in India. Strategies are now being employed with better marketing of the pharmacies by locating them at easy access places. This change has prompted the urban population towards using non-prescription as in their busy life schedule, it is very challenging to find some to consult a doctor. At the same time, high inflation rate in India has also increased doctors' fee which have further deepened the problem of self-medication.

Conclusion:

The pattern of self-medication is different in urban and rural literate populations. Adverse reactions including emergencies can occur due to self-medication. Hence, awareness about self-medication and its hazards has to be created. Authorities should lay and enforce strict norms in regulating the sale of medicines.

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