

An epidemiological study of self-medication among urban adults of Aligarh

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ABSTRACT


Background: Self prescribing is usually defined as “medication that is taken on the patient’s own initiative or on the advice of a pharmacist or lay person.” In developing countries like India, private pharmacies are the predominant drug dispensers and “prescription only” drugs are available for sale in official pharmacies without a prescription. Modern medicament though of prime importance to humanity is potentially hazardous when administered indiscriminately in the form of “self-medication.” **Objectives:** To study the prevalence and pattern of self-medication among urban adults. **Materials and Methods:** A cross-sectional study was done among 424 adults aged 18 years and above residing in registered field practice area of Urban Health Training Centre. The sample was drawn using systematic random sampling with probability proportionate to size. The interview was taken using predesigned and pre-tested questionnaire. Out of 424, 395 adults responded to the questionnaire. Results were analyzed using SPSS version 20. Tests of proportion were used. **Results:** The prevalence of self-medication was found to be 83%. Pain was the most common symptom for self-medication. The source of drugs was mainly medical store. Lack of time, mild illnesses were the most common reason for not seeking medical advice. The majority of them were unaware of the adverse effects related to self-medication. **Conclusion:** Higher prevalence, as well as low awareness of side effects of self-medication, was seen. Awareness regarding the adverse consequence related to self-medication should be raised to lower the prevalence of self-medication.

KEY WORDS: Self-medication; Urban; Aligarh

INTRODUCTION

Medicines in the form of tablets, capsules, etc., are utilized by peoples in prevention, cure, and treatment of common medical illnesses. Self-medication is the selection and use of medicines by individuals to treat self-recognized illnesses or symptoms. Self-medication is one element of self-care.^[1] Self-medication can also be defined as the “use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed drug for chronic or recurrent

disease or symptoms.”^[2] The WHO is promoting practice of self-medication for the effective and quick relief of symptoms without medical consultations and reduce burden on health-care services, which are often understaffed and inaccessible in rural and remote areas.^[3] Self-medication is on the rise, and a number of reasons could be enumerated for this rise. The shift in the pattern of disease toward chronic ones (from 30% to 80% in 40 years) with an attended 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.^[1] However, if the self-medication is inappropriate it may lead to various problems such as wastage of resources, increases resistance of pathogens and serious health hazards such as adverse drug reactions, prolonged suffering, and drug dependence.^[4] The previous researches have shown very high prevalence of self-medication such as in urban Delhi it was found to be 92.8%; in an urban slum community in Mumbai,

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it was 55.9%, etc.^[5,6] The reasons for self-medication were common cold and fever in a study done in urban Delhi whereas the other study in Kerala, South India showed that majority took self-medication for a headache, dyspnea, gas trouble, etc.^[5,7] Therefore, the study was planned with the objectives to study the prevalence and pattern of self-medication among urban adults.

MATERIALS AND METHODS

The present study was a community-based cross-sectional study carried out among adults aged 18 years and above residing in the urban field practice areas of Urban Health Training Centre, Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh, Uttar Pradesh for 1 year from July 2014 to June 2015.

Sample Size Calculation

Sample size was determined by formula $4pq/l^2$,^[8] where p is prevalence, $q = (1-p)$ and l = permissible error assuming 95% confidence interval. It was calculated taking the anticipated prevalence of (p) 50% since no prior study could be traced in the study population. By adjusting the absolute error (l) of 5%, the sample size came out to be 385 which was finally selected to be 424 by adding 10% non-response rate. Out of 424 sample size, 395 adults responded to the questionnaire.

Sampling Method

The individual subjects were selected using systematic random sampling with probability proportionate to size method.

Inclusion Criteria

The subjects were taken from the registered families under UHTC, Department of Community Medicine, JNMC, AMU, Aligarh. Individuals aged more than or equal to 18 years of age, irrespective of sex, who have had an episode of illness within previous 6 months and giving consent to take part in the study, were included in this study.

Exclusion Criteria

Individuals below 18 years of age or who did not have an episode of illness within previous 6 months and not giving consent, were excluded from the study.

Data Collection

The data were collected using predesigned and pretested questionnaire.

Statistical Analysis

Data were entered, tabulated and analyzed using SPSS 20. Tests of proportion were applied. Modified Wald method was used to calculate confidence interval of proportion.

Ethical Consideration

Informed verbal consent was taken from each individual. The nature and consequences of the study were explained and confidentiality was maintained. The study was approved by Institutional Ethics Committee.

RESULTS

Socio-demographic Profile of the Study Population

Table 1 depicts the socio-demographic profile of the study population. It was observed that the majority of adults in the study population were in the age group 26-35 years. The proportion of females in the study population was higher (55.4%) as compared to males (44.6%). Similarly, the proportion of illiterates was higher (54.2%) than literates. Most of the study population belonged to medium standard of living index (46.1%).

Prevalence and Pattern of Self-medication Among Study Population

The prevalence of self-medication was 83% (95% confidence interval - 79%, 86.4%) among the study population.

Table 1: Socio-demographic profile of the study population ($n=395$)

| Socio-demographic profile | <i>n</i> (%) |
|---------------------------|--------------|
| Age (in years) | |
| 18-25 | 108 (27.4) |
| 26-35 | 126 (31.9) |
| 36-45 | 98 (24.8) |
| 46-55 | 44 (11.1) |
| <56 | 19 (4.8) |
| Sex | |
| Male | 176 (44.6) |
| Female | 219 (55.4) |
| Literacy status | |
| Illiterate | 217 (54.2) |
| Literate | 178 (45.9) |
| SLI | |
| Low | 127 (32.2) |
| Medium | 182 (46.1) |
| High | 86 (21.7) |

SLI: Standard of living index

The most common illness for self-medication was pain (90.8%), fever (86.1%), abdominal problems and diarrhea (84.7%), etc. (Figure 1).

The most common source of drug for self-medication was found to be medical shop/chemist shop (59%) followed by hospital pharmacy (26%) and other shops (15%) (Figure 2).

The reasons for not seeking medical advice were mainly lack of time (71.3%), mild illness (67.6%), cost saving (61.5%), and reluctance to follow-up (40.4%). Majority of them (68%) were unaware of the adverse effects related to self-medication.

DISCUSSION

This study was a community-based study carried out in the field practice areas of Urban Health Training Centre, Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh. The prevalence of self-medication was found to be 83%. Pain was the most common symptom for self-medication. The source of drugs was mainly medical store/chemist shop. Lack of time, mild illnesses were the most common reason for not

seeking medical advice. Majority of them were unaware of the adverse effects related to self-medication.

Similar prevalence has been also noted by other studies such as a study done in Ahmedabad showed that the prevalence of self-medication in study population was 82.3%.^[9] Another study in Ahmedabad reported that the prevalence of self-medication was 82%.^[10] However, some studies showed higher prevalence of self-medication than the present study like a study done in an urban area of Delhi, India found that the prevalence of self-medication was 92.8%.^[5] Other studies showed lesser prevalence of self-medication as compared to the present study such as a study done in urban part of South India showed the prevalence of self-medication to be 55.5%.^[7] A study done in urban Delhi showed that the prevalence of self-medication was 31.3%.^[11] Wide variation in the magnitude of prevalence of self-medication due to various factors such as regional differences, type of questionnaire used, recall period of self-medication, ease of access to drugs and possibly many other factors which need to be studied by a large-scale study. The most common symptom for self-medication in our study was pain. Similarly, a study done in Pakistan showed that pain was the most common symptom for self-medication.^[12] However, the results of other studies were different than the present study such as a study done in urban Delhi showed common cold as the most common symptom for self-medication.^[5] Another study from urban part of South India showed that headache was the most common symptom for self-medication.^[7] The source of drugs was mainly medical store/chemist shop in the present study. Similarly, a study done in Maharashtra showed that major sources of procurement of drugs was chemist shop.^[13] The present study showed that lack of time was the most common reason for not seeking medical advice. Similarly, a study done in Ahmedabad showed time saving as the most common reason for not seeking medical advice.^[9] However, a study done in urban Maharashtra showed that main reasons for not seeking medical advice was given as their perception of the disease being not serious.^[14] Another study in urban Delhi reported that the most common reasons for not seeking medical advice was considering disease as minor ailments.^[5] In the present study, majority of them were unaware of the adverse effects of self-medication. However, other studies in Ahmedabad and South India showed that most of them were aware of adverse effects of self-medication.^[9,15] The reason for high awareness might be due to the fact these studies were done in medical students.

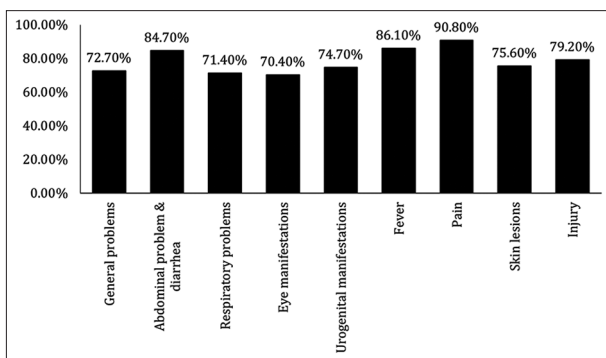


Figure 1: Self-medication practice according to the specific symptoms of illness

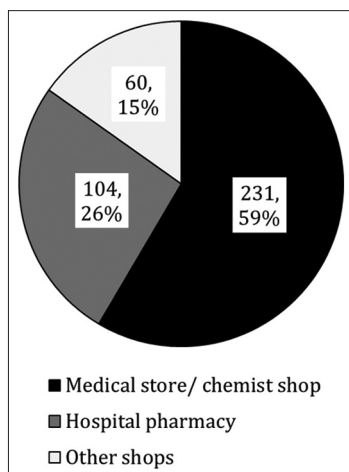


Figure 2: Self-medication practices according to sources of drugs

Strength and Limitations

The strength of the study was the nature of study being community based in which the study findings can be extrapolated to the whole population. The limitation of the study was that it was cross-sectional in which only the prevalence and pattern of self-medication were studied. The

factors that lead to high prevalence and the above pattern were not taken into account.

CONCLUSION

The study concluded that there was very high prevalence of self-medication among study population. The study also showed that awareness of side effects of self-medication was very low among them. Therefore, action aimed at generating awareness regarding the adverse consequence related to self-medication should be taken to lower the prevalence of self-medication.

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