Research Article

Self-medication practices in rural Aligarh, Uttar Pradesh, India

Mohd Tabish Khan*, Anees Ahmad, Najam Khalique, Mohammad Athar Ansari, Mohd Maroof, Mohd Najmul Aqib Khan

Department of Community Medicine, J. N. Medical College, AMU, Aligarh, Uttar Pradesh, India

Received: 08 August 2016
Accepted: 06 September 2016

*Correspondence:
Dr. Mohd Tabish Khan,
E-mail: ftm_786@yahoo.co.in

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

BACKGROUND: Self-medication is the use of medication by a patient on his/her own idea or on the suggestion of pharmacist on the opinion of a lay person instead of taking the advice of consulting a medical practitioner. Self-medication is the rising form of self-care and it is becoming a major problem in making the correct diagnosis. The objective was to study the prevalence of Self-Medication among rural population, to identify common ailment for Self-Medication and to find out reasons of Self-Medication.

METHODS: A cross sectional descriptive study was carried out in rural field practice area of Rural Health Training Centre, Department of Community Medicine, J.N. Medical College, AMU, Aligarh, Uttar Pradesh, India. A total of 424 adults aged 18 years and above were included in the study. The sample was drawn using systematic random sampling with probability proportionate to size. Data was collected using pretested and predesigned questionnaire. Data was analysed using by SPSS 20. Chi square test was used. P value <0.05 was considered as significant.

RESULTS: The prevalence of Self-Medication in the study population was 72% with no statistically significant gender difference. The common ailments necessitating self-medication were injury (80.3%), fever (76.5%), abdominal problems and diarrhoea (73.8%), respiratory problems (73.5%) etc. The major reasons for self-medication were found to be mild illness (52.1%), cost saving (50.3%), convenience (45.1%) etc.

CONCLUSIONS: The study concluded that Self Medication was present in approx. three-fourth of the population. Therefore, steps in the form of information, education and communication are needed to make public aware about the ill effects of self-medication.

Keywords: Practices, Rural, Self-medications

INTRODUCTION

In developing countries like India there is a wide range of disease occurrence coupled with inadequate provision of health care services. This results in increase proportion of drug usage as it reduces the load on the medical services. Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, treatment or monitoring of treatment.

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. On the other hand if done appropriately, self-medication can readily relieve acute medical problems, and can save time spent in waiting to see doctor, may be economical and can even save lives in acute conditions.1

Self-medication is flourishing due to various factors like socioeconomic factors, lifestyle, previous experience of treating a similar illness, ready access to drugs and the increased potential to manage mild illness through self-care. There are only a few studies available on the practice of self-medication in rural areas. This study was...
planned with the objectives to find the prevalence of self-medication practices in the rural population, to identify common ailments for self-medication and to find out reasons of self-medication.

METHODS

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

Sample size calculation

Sample size was determined by formula

\[ n = \frac{z^2 \cdot p \cdot (100 - p)}{d^2} \]

For confidence interval = 95%, \( z = 1.96 \)
\[ n = (1.96)^2 \cdot p \cdot (100 - p) / d^2, \]
\[ q = 100 - p \]

Since, no good prior knowledge about the prevalence was available; the sample size was calculated by anticipating \( p \) to be 50%. Absolute precision \( d \) was taken as 5%.

Substituting the values

\[ n = \frac{1.96^2 \cdot 0.25}{0.05^2} = 385 \]

Adding a non-response rate of 10% = 385 + 38.5 = 423.5
\[ n = 424 \]

After excluding non-co-operative adults (n=27), the remaining 397 adults were sampled using systematic random sampling with probability proportionate to size (PPS).

Inclusion criteria

- Individual’s ≥18 years of age, irrespective of sex, from registered families under RHTC.
- Individual have had an episode of illness within the six months of the data collection date were recruited.
- Individuals who gave consent to be part of study.

Exclusion criteria

- Below 18 years of age.
- Individual did not have an episode of illness within the six months of the data collection date were recruited.
- Individuals who did not give consent

The data was collected using predesigned and pretested questionnaire. Informed verbal consent was taken from each individual. The nature and consequences of study were explained and confidentiality was maintained. The study was approved by Institutional Ethics committee.

Data analysis was done using SPSS 20. Chi-Square test was used to find association of prevalence of Self-Medication with gender. \( P \) value <0.05 was considered as significant.

RESULTS

The prevalence of Self-Medication was 72% among the study population. The prevalence of Self-Medication was not significantly associated with gender (Table 1).

Table 1: Prevalence of self-medication among study population (N=397).

| Medication           | Male N (%) | Female N (%) | Total N (%) |
|----------------------|------------|--------------|-------------|
| Self-medication      | 95 (72.51) | 191 (71.8)   | 286 (72)    |
| Prescribed           | 36 (27.5)  | 75 (28.2)    | 111 (28)    |
| Total                | 131 (100)  | 266 (100)    | 397 (100)   |

\( \chi^2 = 0.022, df = 1, p = 0.881. \)

Table 2: Common ailments for self-medication (N=397).

| Illness/Symptoms       | Rural Self N (%) | Prescribed N (%) | Total N (%) |
|------------------------|------------------|-----------------|-------------|
| General problems       | 174 (62.6)       | 104 (37.4)      | 278 (100)   |
| Abdominal problem & diarrhoea | 138 (73.8)   | 49 (26.2)       | 187 (100)   |
| Other head & neck manifestations | 108 (59)     | 75 (41)         | 183 (100)   |
| Eye manifestations     | 90 (58.4)        | 64 (41.6)       | 154 (100)   |
| Urogenital manifestations | 108 (73)       | 40 (27)         | 148 (100)   |
| Respiratory problems   | 191 (73.5)       | 69 (26.5)       | 260 (100)   |
| Fever                  | 182 (76.5)       | 56 (23.5)       | 238 (100)   |
| Skin lesions           | 72 (61)          | 46 (39)         | 118 (100)   |
| Injury                 | 61 (80.3)        | 15 (19.7)       | 76 (100)    |
The common ailments necessitating self-medication were injury (80.3%), fever (76.5%), abdominal problems and diarrhoea (73.8%), respiratory problems (73.5%) urogenital manifestations (73%), general problems (62.6%), skin lesions (61%), other head and neck manifestations (59%), and eye manifestations (58.4%) (Table 2).

**Figure 1: Reasons for self-medication (N=397).**

The major reasons for self-medication were found to be mild illness (52.1%), cost saving (50.3%) , convenience (45.1%), lack of time (36.4%), prior experience with illness (34.6%) followed by reluctance to follow up (33.2%), quick relief (31.5%), unavailability of doctors (24.1%).

These findings constitute some of the major concerns of this study and they have implications for health human resource managers in particular as they relate the health and welfare of the caregiver (Figure 1).

**DISCUSSION**

Wide variations in the prevalence of self-medication were reported by many researches across the world. Researchers from various parts of India reported similar prevalence of self-medication as compared to this study. A cross sectional study done in rural Kolar found that 76% were practicing self-medication.6

Another cross sectional study in rural area of Barabanki found that 69.6% of individual were practicing self-medication. There is no sex difference observed for self-medication use in this study.4

Other scholars presented a higher prevalence of self-medication as compared to this study in rural area of Karad taluka in Western Maharashtra found that prevalence of self-medication was found to be 81.5%.5 While other researchers reported a much lower prevalence of self-medication 54.7% of rural population were found to be self-medicating in compared to this study.6

Other researchers also reported similar ailments like fever (72.6%), pain (64.3%) and respiratory symptoms (57.1%), followed by infections, headache and diarrhoea, etc. for self-medication as compared to this study.4 Similar ailments for self-medication was shown in study conducted by Ahmad et al were headache and other pain, fever, urinary tract infection, cough and cold.7

Keshari et al reported that the most common reasons for self-medication are Time saving (45.2%), High cost of consultation (42.3%), minor illness (Doctor’s advice not needed) (39.9%), convenience (25.0%).4

In an another study conducted by Kaushal et al in Rohtak found that the most common reasons for self-medication were financial restraints and lack of time to go to the medical practitioner.5

**CONCLUSION**

The study concluded that self-medication was present in approx. three-fourth of the population. Therefore, steps in the form of information, education and communication are needed to make public aware about the ill effects of self-medication.

**ACKNOWLEDGEMENTS**

Authors are grateful to all study participants who were willingly participated in the study.

**Funding: No funding sources**  
**Conflict of interest: None declared**  
**Ethical approval: obtained from the Ethical Committee of the J.N. Medical College, AMU, Aligarh which reviewed the proposal, questionnaire, and consent form before providing clearance.**

**REFERENCES**

1. Gupta P, Bobhate PS, Shrivastava SR. Determinants of self-medication practices in an urban slum community. Asian J Pharm Clin Res. 2011;4:54-7.
2. Le CT. Introductory Biostatistics. Hoboken, NJ Wiley. 2003;5-7,115-7.
3. Sama S, Mahesh V, Muninarayana C, Anil NS. Study of self-medication patterns among medical and nursing students in deemed medical university. Int J Basic Appl Med Sci. 2015;5:280-4.
4. Keshari SS, Kesarwani P, Mishra M. Prevalence and pattern of self-medication practices in rural area of Barabanki. Indian J Clin Pract. 2014;25:636-9.
5. Phalke VD, Phalke DB, Durgawale PM. Selfmedication practices in rural Maharashtra. Indian J Community Med. 2006;31:345.
6. Nair MGS, Rajmohan TP, Kumaran J. Self-medication practices of reproductive age group
women in Thiruvananthapuram District, South India: A questionnaire – based study. J Pharm Sci Res. 2013;5:220-5.

7. Ahmad A, Patel I, Mohanta G, Balkrishnan R. Evaluation of Self Medication Practices in Rural Area of Town Sahaswan at Northern India. Ann Med Health Sci Res. 2014;4:73-8.

8. Kaushal J, Gupta MC, Jindal P, Verma S. Self-medication patterns and drug use behaviour in housewives belonging to the middle income group in a city in northern India. Indian J Community Med 2012;37:16-9.

Cite this article as: Khan MT, Ahmad A, Khalique N, Ansari MA, Maroof M, Khan MNA. Self-medication practices in rural Aligarh, Uttar Pradesh, India. Int J Community Med Public Health 2016;3:2874-7.