

# A Study to Assess the Self Medication Practices Among People in Bangalore

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## ABSTRACT

**Background:** Self-medication is one of the major health concerns worldwide. Most people are not aware of the serious consequences faced by them if they take medications specially the antibiotics on their own. It is very evident that self-medication is increasing in the developing countries like India. Hence, this study is designed to study the self-medication practices in the metro city Bangalore, India.

**Materials and Methods:** A cross sectional study was conducted, and data was collected by using structured questionnaire. Data was collected from 350 persons and analyzed using SPSS.

**Results:** The prevalence of self-medication was 94%. The study revealed that self-medication was practiced more among young than old age group ( $P = 0.004$ ). Unmarried people practiced self-medication more than the married people ( $P = 0.011$ ). 80% preferred allopathic medicines. The common ailments for which self-medication was practiced were Common cold (59%), Headache (57%) and fever (55%). The type of drugs commonly used were Antipyretics (51%) and analgesics (43%).

**Conclusion:** The study revealed that prevalence of self-medication was high. 91% of the respondents were belonging to urban area and hence it attributes to higher educational background and socioeconomic status. More awareness should be created on the side effects of practicing self-medication.

**Keywords:** Self-medication, Urban population, Rural population, Prevalence

## INTRODUCTION

Self-medication can 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.<sup>[1]</sup> In developing countries like India, easy availability of a wide range of drugs along with inadequate and inaccessible health care services result in increased self-medication compared to use of prescribed drugs.<sup>[2]</sup> Although, OTC (over the counter) drugs are meant for self-medication and are of proved efficacy and safety. Their improper use due to lack of knowledge of

their side effects and interactions can have serious implications. This can lead to serious complications especially in children, old age people and special physiological conditions like pregnancy and lactation.<sup>[3,4]</sup>

In 1978, the Declaration of Alma-Ata recognized people's involvement in achieving the optimum health. Also, Ottawa declaration of health promotion in 1986 emphasized the central role of individuals and communities in contributing to health.<sup>[5]</sup>

The World Health Organization (WHO) has defined self-medication as the practice whereby individuals treat their ailments and conditions with medicines that are approved

and available without prescription, and which are safe and effective when used as directed.<sup>[6]</sup> Assessing the self-medication practices is very useful to government, drug regulatory agencies, health care administrators, physicians and pharmacists. They can use this information to understand the practices, and reasons behind self-medication from patients' perspective. Government and regulatory agencies can utilize this information to improve and implement drug dispensing policies and awareness regarding the side effects.<sup>[7]</sup>

## MATERIALS AND METHODS

This was a cross sectional study, which employed the collection and analysis of quantitative data using a self-constructed questionnaire survey method which was mailed to the subjects who are residing in Bangalore. Prior to data collection, approvals were taken from concerned authority. Based on the inclusion criteria employing random sampling technique the subjects were selected for the study. The questionnaire was mailed to the subjects.

## RESULTS

Table 1: Self-medication practices of the sample according to sociodemographic variables

Demographic variables	Self-Medication Yes Frequency (%)	Self-Medication No Frequency (%)	Total Frequency (%)	P value
	n=328 (94%)	n=22 (6%)	n=350(100%)	
<b>Age group</b>				
Less than 30	164 (47%)	4 (1%)	168 (48%)	<b>0.004</b> <b>P&lt;0.05</b> <b>Significant</b>
30-40	99 (28%)	10 (3%)	109 (31%)	
40-50	34 (10%)	2 (0.5%)	36 (10.5%)	
50-60	18 (5%)	5 (1.4%)	23 (6.5%)	
Above 60	13 (4%)	1 (0.2%)	14 (4%)	
<b>Gender</b>				<b>0.804</b>
Male	128 (36.6%)	8 (2.3%)	136 (38.9%)	<b>P &gt; 0.05</b>
Female	200 (57.1%)	14 (4%)	214 (61.1%)	<b>Not significant</b>
<b>Marital status</b>				<b>0.011</b>
Married	133 (38%)	15 (4.3%)	148 (42.3%)	<b>P &lt; 0.05</b>
Unmarried	195 (55.7%)	7 (2%)	202 (57.7%)	<b>Significant</b>
<b>Education</b>				<b>0.864</b>
Secondary	10 (2.8%)	1 (0.2%)	11 (3%)	<b>P &gt; 0.05</b>
Degree	175 (50%)	11 (3.1%)	186 (53.1%)	<b>Not significant</b>
Post graduation	143 (41%)	10 (2.9%)	153 (43.9%)	
<b>Domicile</b>				<b>0.846</b>
Urban	302 (86.3%)	20 (5.7%)	322 (92%)	<b>P &gt; 0.05</b>
Rural	26 (7.4%)	2 (0.6%)	28 (8%)	<b>Not significant</b>
<b>Employment</b>				
Healthcare worker	22 (6%)	4 (1%)	26 (7%)	<b>0.208</b> <b>P &gt; 0.05</b> <b>Not significant</b>
Private	194 (55.4%)	13 (3.7%)	207 (59.1%)	
Government	3 (0.9%)	0 (0%)	3 (0.9%)	
Unemployed	109 (31.1%)	5 (1.4%)	114 (32.5%)	

Primary data was collected, tabulated and percentages were calculated. A total of 350 sample was selected for the study. People who are between 18-70 years of age were included in the study.

The objectives of the study were:

1. To study the self-medication practices among the people of different socio-demographic classes in Bangalore
2. To identify common illnesses and symptoms for which self-medication is practiced
3. To analyze self-medication practices with respect to the categories of medicines consumed by the study subjects.
4. To identify the factors that lead to self-medication among the people of Bangalore.

**Statistical Analysis:** Chi square test was done in order to find out the association between the respondent's demographic variables and their self-medication practices. The primary data was analysed using the SPSS Software.

The study revealed that self-medication was practiced more among young than old age group ( $P=0.004$ ). Unmarried respondents practiced self-medication more than the married ( $P=0.011$ ). There is no significant association between the prevalence of self-medication and the demographic variables such as Gender ( $P=0.804$ ), Education ( $P=0.864$ ), Domicile ( $P=0.846$ ) and Employment ( $P=0.208$ ) since P value is not less than 0.05.

**Table 2- Showing the multiple responses for various variables affecting the self-medication practices**

Variables	Frequency n =350	Percentage
<b>Diseases for which self-medication done</b>		
Common cold	205	59%
Headache	201	57%
Fever	194	55%
Cough	163	47%
Stomachache	101	29%
Backpain	76	22%
Muscle pain	72	21%
Gastritis	72	21%
Allergy	50	14%
Toothache	42	12%
<b>Type of medicines taken for self-medication</b>		
Allopathic medicines	280	80%
Homeopathy medicine	47	13%
Ayurvedic medicine	41	12%
Unani	2	1%
Siddha	2	1%
Traditional	57	16%
<b>Categories of medicines</b>		
Antipyretics	179	51%
Analgesics	151	43%
Vitamins	87	25%
Antibiotics	66	19%
<b>Factors leading to self-medication</b>		
Illness is minor	229	65%
Time saving	90	26%
Financial constraint	15	4%
Non availability of doctors	15	4%

Regarding availability of medical facility, majority (70%) responded that hospital was available near their residence and 42% told that clinic is available near their residence and 17% told that Primary Health Centre is available near their residence. The study showed that the medical facility is available in less than 1 Km from their residence for 51% participants and it is between 1-2 Km for 24%, whereas it is between 2-5 Km for 17% and only its available more than 5 Km from their home for 7% participants.

Regarding buying medicines on their own without doctor's prescription, 64% responded that they buy sometimes,18%

said never,8% told they buy often and only 9% told they buy most often. Regarding frequency of buying the medicines over last one year, Majority (83%) responded that they buy medicines only when they have certain symptoms,11% told that they bought medicines monthly and only 3% each responded that they bought medicines weekly and biweekly respectively. With respect to reasons for starting self-medication, 33% responded they started self-medication because of improving or worsening conditions,9% told that the latter one was cheaper,8% told that the former medicine did not work and 7% told that the drug was not sufficient for complete treatment.

The study revealed that 90% did not have any adverse side effects due to self-medication. In case of adverse side effects, 25% stopped taking medicines,22% consulted a medical practitioner and 6% switched to another medicine and another 6% consulted pharmacist respectively.

## DISCUSSION

The study showed that prevalence of self-medication is 94% which is similar to 92.8% as in the Delhi study.<sup>[8]</sup> The present study revealed that common cold (59%), headache (57%) and fever (55%) were the most common ailments for which self-medication was practiced. These are similar to the results found in study of urban area of Rajasthan showing fever (75.31%) headache (62.04%), and cough and common cold (43.21%) as the common ailments.

The present study showed that antipyretics (51%), analgesics (43%), vitamins (25%) and antibiotics (19%) were the most commonly used drugs which is similar to results found in Rajasthan study where it was seen that paracetamol (73.77%), analgesics (41.98%) and antibiotics (20.37%) were commonly used.<sup>[9]</sup>

In the present study, majority(65%) perceiving the ailment as minor was the leading cause for practicing self-medication, again this confirms the report from studies done in Bangalore and Hooghly.<sup>[10,11]</sup> With

regard to source of getting information, it was found that 52% were referring to previous prescriptions, 24% were consulting a local pharmacist, 35% were consulting family and friends and 9% were influenced by electronic and print media. These results were similar to the report from the study done in Meghalaya.<sup>[12]</sup>

With respect to buying medicines, majority (92%) of the respondents were buying medicines from medical shops which was similar to the study done in Erode district.<sup>[13]</sup> It was found that only 7% bought from online and only 1% each bought from hospital pharmacy and supermarket respectively.

## CONCLUSION

In our study, majority of the sample practiced self-medication using analgesics, antipyretics, and antibiotics used either alone or in combination. Awareness programmes regarding the side effects of self-medication can be organized by the private health care or educational institutions as part of community outreach programme. Government should enforce strict legislation, which limits the sales of antibiotics without prescription which is harmful to health of the public.

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