

Practice of self-medication among the adult population in the Municipal Corporation area of Siliguri, West Bengal, India

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Abstract

Background: Self-medication is a major public health concern which has increased at the community level. It may lead to delay in diagnosis as well as care seeking. Present study was undertaken to find out the prevalence and pattern of self medication practices among adult population in an urban area of Siliguri Municipal Corporation area of West Bengal. **Methods:** A cross-sectional study was conducted among 110 adults in urban areas of Siliguri Municipal Corporation area by purposive sampling. **Results:** The prevalence of self-medication among urban adults was found to be 47.2%. More than 50% of the study subjects had symptoms like fever and headache for resorting medication by him. Common drugs were antipyretic or paracetamol (65.4%), antacid (50%), anti-inflammatory (44.2%) or anti-allergic (42.3%). Significant association was found between occupational status (engaged in unskilled work) and self-medication. **Conclusion:** Self-medication practices are a dual sword to manage time, relieve overburdened medical practice and increased resistance of pathogens due to delayed diagnosis etc. Health educational activities should be initiated to encourage common people in order to utilize health care services from government facilities which are now made at a subsidized cost.

Keywords: Drugs, magnitude, self-medication, habit

Introduction:

Self-medication is one of the most modern expressions of self-care. Self-medication is an age old practice. According to WHO "self-medication involves use of pharmaceutical or medicinal products by the consumer to treat self-recognized disorders or symptoms, the intermittent or continued use of a medication previously prescribed by a physician for chronic or recurring disease or symptom"¹. In early days as 1950s, health was centered on medicines, doctors and health problems. But in 1980s, the public health importance of self-medication increased when more drugs were changed from prescription status to over the counter (OTC) without a prescription².

Self-medication has increased due to several factors like socio-economic, lifestyle, ready and increased access to drugs, the increased potential to manage certain illness and increased knowledge and awareness about health and diseases³. Irrational use of medicines can create many

problems like increase in risk of adverse events, antibiotic resistance, and masking of symptoms which can delay correct diagnosis. This growing concern of self-medication is not restricted in developing countries only, has been adopted worldwide.

A study by Shankar PR et al shows a prevalence of 59% in Nepal⁴. According to Pushpa R et al in a study in Sri Lanka found self-medication to be 12.2% in urban sector and 7.9% in rural sector⁵. Prevalence of self-medication in urban Puducherry was found to be 11.9%. Fever (31%), headache (19%), and abdominal pain (16.7%) are most common illnesses where self-medication is being used⁶.

In West Bengal few studies have been documented related to self-medication. A study by Mandal P et al⁷ shows 39% respondents practiced self-medication and 33.4% chose their medicines on the basis of previous experiences. A study among undergraduate medical students in a tertiary care medical college of West Bengal⁸ and in homeopathic schools⁹ found the prevalence of self-medication to be 57.1%

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and 72.3% respectively..Rational use of medicines should be promoted by the medicine shopkeepers for the community¹⁰.The youth is especially exposed to the media and the increased advertising of pharmaceuticals poses a larger threat to the young population^{11,12}.

In this perspective, the present study was done to estimate the prevalence and pattern of self-medication among adult population in an urban area of Siliguri Municipal Corporation Area of West Bengal.

Materials and Methods:

The present study was community based descriptive study with cross-sectional in design done in May-June of 2017 in Siliguri Municipal Corporation area of Darjeeling district.The prevalence of self-medication varies from 30-70% in different regions of India⁴⁻⁹.So 50% prevalence is chosen to get the maximum sample size. Considering this proportions the final sample size of 110was fixed. They were selected from ward 23 in the vicinity of urban field practice area of department of community medicine of North Bengal Medical College & Hospital. They were selected by purposive sampling method and interviewed in their houses with the help ofpre-designed, pretested questionnaire and also by prescriptions review. The study variables includes socio-demographic variable like age, gender, religion, marital status ,education, occupation and self-medication related variables like frequency of intake, type, duration indication, cause of self-medication etc. The data collection was done by house to house visit. During home visit, the head of the family and other family members were communicated about the purpose of the study and one adult subject was chosen randomly from one household. A detail of the self-medication history was collected for the last one month. The operational definition of self-medication used in the study was explained to each one for uniform reporting.

After collecting the data were entered in Microsoft excel datasheet 2007. Data analysis was done using the principles of descriptive statistics. Analysis of the data was done by using IBM statistical package for social sciences version 20 (SPSS 20). Ethical approval was taken from the Institutional Ethics Committee of North Bengal Medical College and Hospital. Permission was also obtained from the local Municipal Authority of Siliguri Corporation Area. Anonymity and confidentiality was ensured to each of the subject. Informed consent was also taken

Results

In this present study, a total of 110 adult persons residing at Siliguri Municipal Corporation area were selected in a ward as study subjects . Out of them 77 persons took some medicine in the reference period. Of them 52 were self-medicated and doctor prescribed for 25 persons which is depicted in pie diagram.

50% of the population used self-medication for one time and 38.5% for two episodes. Out of person who took medicines of their own 7.7% replied that their symptoms worsened. Paracetamol and antacid were most common

Fig 1: Pie diagram showing number of persons

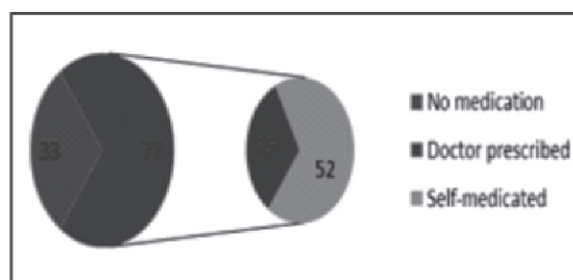


Table1. Pattern of Self-Medication among the study population(n=52)

Episodes of self-medication	No.	(%)
Once only	26	50.0
Twice	20	38.5
Thrice or more	6	11.5
Outcome of self-medication		
Cured	28	53.8
Improved	20	38.5
Worsened	4	7.7
*Drugs used for Self-Medication		
Paracetamol	34	65.4
Antacid	26	50.0
Anti-inflammatory	23	44.2
Anti-allergic	22	42.3
Cough and cold remedies	16	30.8
Antibiotics	11	21.1
Vitamins	10	19.2
Others	9	17.3
*Common ailments for resorting Self-Medication		
Fever	28	53.8
Headache	26	50.0
Cough/Cold	16	30.8
Acidity/Hear tburn	14	26.9
Diarrhea	11	21.1
Sleep disorder	7	13.4
Nausea	7	13.4

*Multiple responses

Table 2: Association of self-medication with socio-demographic factors

Socio-demographic factors	Practicing Self-Medication No. (%)	Not Practicing Self-Medication No. (%)	X ² DF and P
Category of age <30 years 30-60 years = 60 years	17(47.2) 28(49.1) 7(41.2)	19(52.8) 29(50.9) 10(58.8)	.332,df-2 .847
Gender Male Female	20(38.5) 32(55.2)	32(61.5) 26(44.8)	3.072,df-1 .080
Educational status Illiterate Primary & middle Higher secondary Graduate & above	6(50) 10(43.5) 20(44.4) 16(53.3)	6(50) 13(56.5) 25(55.6) 14(46.7)	.755,df-3 .860
Occupational status Job and business Unskilled worker Student and unemployed Homemaker	16(32.0) 6(60.0) 10(55.6) 20(62.5)	34(68.0) 4(40.0) 8(44.4) 12(37.5)	8.801,df-3 .032
Type of family Nuclear Joint	39(52.7) 13(36.1)	35(47.3) 23(63.9)	2.675,df-1 .102
Family Income < Rs.10,000 Rs.10,000-30,000 = Rs.30,000	3(25.0) 36(51.4) 13(46.4)	9(75.0) 34(48.6) 15(53.6)	2.881,df-2 .237
Addiction Present Absent	15(40.5) 37(50.7)	22(59.5) 36(49.3)	1.014,df-1 .314

drugs ingested. Fever, headache and common cough and cold were the presenting ailments.

Practice of self-medication and association with socio-demographic factors were studied. Occupational status was found to be significantly associated with the self-medication.

Discussion:

Prevalence of self-medication

A cross-sectional, descriptive study was conducted among urban population of Siliguri Municipal Corporation. The study was aimed to find out the prevalence and pattern of self-medication among adult study subjects. It also tried to elicit various factors associated with self-medication. Self-medication can be defined as the consumption of medicines by people on their own initiative. Easy availability of a wide

range of drugs and inadequate and inequitable health services result in increased proportions of drugs to be used as self-medication in developing countries like India³. Present study reported prevalence of self-medication among urban adults is to about 47.2%. This finding is similar to a study conducted in rural Meghalaya by Marak A. et al¹³. A community-based, cross-sectional study in rural areas by Ahmed et al. had found that 50% of respondents practiced self-medication¹⁴.

But prevalence of self-medication in urban Pondicherry was found to be as low as 11.9%. A study among undergraduate medical students in a medical college of West Bengal found the prevalence of self-medication to be 57.1%. It was found to be 55.9% in an urban slum community of Mumbai¹⁵.

Pattern of self-medication

More than 50% of the study subjects had symptoms like fever and headache for resorting medication by him. Other symptoms were cough and cold, acidity or diarrhea or sleep disorder. Headache, fever, respiratory illnesses were the common symptoms in Mumbai study¹⁵. Vague pain, cold; heart burn and headache were the presenting symptoms in a study among undergraduate medical students¹⁶. Similar findings were observed in a study in New Delhi¹⁸. Common drugs were antipyretic or paracetamol (65.4%), antacid (50%), anti-inflammatory (44.2%) or anti-allergic (42.3%). Paracetamol and cough syrups were the most commonly used class of drugs in a study by Gupta et al¹⁶. A study by Banerjee I. et al, among undergraduate medical students revealed that common cold and diarrhea were presenting symptoms and antibiotics were most commonly taken¹⁷. Similar findings were noted in a study done in Ahmadabad, India²⁰ and by Adhikary et al¹⁸ and even in Rajasthan among urban population¹⁹. Sedatives and antibiotics were commonly used in the study of Saudi Arabia¹⁸. Analgesics were most common followed by antipyretics and analgesics in a study conducted in Karachi²¹.

Associated factors

Age category, gender, educational status, occupational status, type of family, family income and addiction were associated with the practice of self-medication. Practice of self-medication is found to be more in the age group of 30-60 years. But in study in Meghalaya it was commoner in younger age groups¹³. It is almost equal in less than 30 years age group. But in study conducted by M. Jain in Rajasthan showed a different pattern where it was common in younger age groups¹⁹. Females are seen to be more dependent on self-medication and this is similar in study by Gupta et al¹⁶. Participants having education of graduate and above had used self-medication more compared to those having education less than secondary and illiterate persons in present study. This is in accordance with the finding of study conducted in Delhi by Varun Kumar et al²². Higher prevalence among productive age group may be due to more access of information to them..

Conclusion and recommendation:

The appropriateness of self-medication is still needed to be developed with the help of appropriate study design and a validated tool. The concept of self-medication is dual sword to manage time, relieve overburdened medical practice where drugs are changed over the counter without a prescription on one hand and many hazards like wrong diagnosis, prolonged morbidity and increased resistance of pathogens on the other hand. Self-medication practices cannot be considered as totally harmful. Drugs classified as "over the counter" (OTC) can be purchased without prescription and many a times might save time and money for the patients.

A study assessing the knowledge of consumers about drug use would be an ideal follow up of this study, for better

planning of interventions. Health educational activities should be initiated and strengthened to encourage common people in order to utilize health care services from government facilities which are now made at a subsidized cost. List of drugs which can be dispensed across the counter should be displayed like the citizen charter and strict vigilance should be done on medical stores to ensure that prescription drugs can be dispensed and not drugs for self-medication.

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