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PRACTICE OF SELF MEDICATION AMONG URBAN HOUSEHOLDS –A COMMUNITY BASED CROSS SECTIONAL STUDY

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ABSTRACT

Introduction: Reckless use of Self- medication poses a threat for both individual health and society. In India, prevalence was estimated to be 31% but there is a wide variation within the country. The aim of this study was to know the practice of self-medication and contributory factors among households of an urban area.

Methods: This study was done based on primary data. Primary data was collected from about 200 households residing in Belagavi. The households were selected using systematic random sampling technique. Data was collected using a predesigned structured oral questionnaire. Statistical analysis was done using Percentages after entering the data in Microsoft excel sheet. The association between self-medication and socio-demographic factors was ascertained using Chi–square test.

Results: The results found that the overall prevalence of self-medication was 35.1%. Paracetamol (90.9%) was the most commonly used drug. Headache (98.6%) and fever (47.1%) were the most common symptoms for the practice of self-medication. Common reason quoted for self-medications was minor illness (78.8%) and sources for self-medication were either previous prescriptions (51.4%) or local pharmacists (25.5%).

Conclusions: One-third of the subjects practiced self-medication. Self-medication was more common among women and the higher socio-economic strata.

Key words: Self-medication, health, prevalence, prescription

INTRODUCTION

Medication today is rapidly becoming an everyday need for many individuals. World Health Organization defines "Self medication as the use of drugs to treat self diagnosed disorders or symptoms or the intermittent or continued use of prescribed drug(s) for chronic or recurrent disease or symptoms."[1] Prevalence of self medication in developing countries widely varies between 12.7% to 95%.[2] It is 59% in Nepal[2], 51% in Pakistan[3], and in Bangladesh 81.3% in young and 78.5% in elderly.[4] In India the prevalence of self medication was 31% and 71% in studies conducted in Nagpur[5] and Karnataka[6] respectively.

Responsible self medication contributes to easy accessibility to medicines, provides quick relief and reduces the expenses on medication to both individual and government.[7] Reckless use of self-medication poses a threat for both individual health and society. Self-medication often provides only symptomatic relief, masking the underlying disease[8] and thus leading to inadequate

treatment. Often the patient is unaware of the correct dosage, side effects and drug interactions. Consumption of inadequate dosage of antibiotics or inappropriate ones has resulted in emergence of drug resistance. This has lead to Methecillin Resistant *Staphylococcus aureus*, Multi Drug Resistant-Tuberculosis, Extensive Drug Resistant-Tuberculosis and drug resistant malaria have become some of the emerging public health problems and a major challenge to treating physicians.[7]

In order to prevent irrational drug use, it is necessary to first assess the prevalence of self medication among individuals and understand the factors contributing to the same.[9] This study was carried out to know the practice of self medication among urban households and the factors contributing to self medication.

METHODS

Source of data: This study uses primary data collected from the households in Belagavi. The practice area of the Urban Health Centre, Ashok Nagar has approximately 4,300 people and about 780 households. This survey covered 200 households from the area.

Method of collection of data: 200 households were chosen using systematic random sampling technique and residents were interviewed with the help of a structured oral questionnaire. Every fourth house was selected and all the household adult members were included in the study. Total of 593 individuals with average of three individuals per household were interviewed regarding practice of self-medication during last 6 months between April and September 2014. The questionnaire was administered across the community in local language (kannada) or English depending on the convenience of household member interviewed.

Sample Size: The sample size of 200 households was calculated by considering the prevalence of self-medication to be 50% and relative error to be 15%. The formula and details about calculation of the sample size are as given below:

Sample Size: Considering Self Medication Prevalence to be 50%(p) and relative error to be 15%(d) the calculated sample Size was 177.7 using formula: $n=4pq/d^2$. Sample size was rounded up to 200 households.

All the permanent adult residents of the urban area (residing at least for one year) were included in the study. Houses locked after three consecutive visits were excluded.

The ethical clearance was obtained from Institutional Ethics Committee for Human Subjects' Research of the Medical College (vide Letter No. – MDC/DOME/153 dated 20/2/2014). The socio economic status of individuals was analyzed using the Kuppuswamy scale.[10]

RESULTS

A total of 593 adult individuals were interviewed among the residents of Ashok Nagar, Belgaum.

According to revised Kuppuswamy scale of Socio-economic status, upper class constituted 22.3% (133), upper middle class 29.6% (175), lower middle class 34%(201) and upper lower class 14.2% (84) . Middle class as a whole constituted 64% (376) of the total participants.

Overall 35.1 % (208) of the respondents' admitted the use of self-medication in the past six months. The total list of commonly used drugs by the participants is given in Table 2. The average number of drugs consumed by an individual practicing self-medication was 2.25.

Paracetamol was most commonly used drug for headache 86.1% (179) followed by fever (46.2%), common cold (15.4%) and body ache (10.6%). Ibuprofen was also commonly used for headache (10.1%), fever (3.8 %) and body ache (3.4%). Diclofenac was mostly used for body ache (5.8%).

Table 1: Age & Sex distribution of participants

Age	Male (%)	Female (%)	Total (%)
18-40	145 (52.5)	180 (56.8)	325 (54.8)
40-60	80 (29)	81 (25.6)	161 (27.2)
>60	51 (18.5)	56 (17.7)	107 (18)
Total	**276 (46.5)**	**317 (53.5)**	**593 (100)**

Table 2: Commonly used Drugs by participants

Drug	Number (%)
Paracetamol	189 (90.9)
Ibuprofen	22 (10.6)
Diclofenac	17 (8.2)
Panto/Omeprazole	24 (11.5)
Ranitidine	17 (8.2)
Phenylpropazone	6 (2.9)
Domperidone	9 (4.3)
Ambroxol/Guinephenacin/Terbutaline	8 (3.8)
Phenylephrine	14 (6.70
Chlorphenaramine/turbinafine	21 (10.1)
Ciprofloxacin	12 (5.8)
Azithromycin/Erithromycin	10 (4.8)
Cetrizine	9 (4.3)

Table 3: Some common symptoms for Self-medication among study participants

Symptoms	Number (%)
Headache	205 (98.6)
Fever	98 (47.1)
Common cold	44 (21.2)
Cough/ Sore Throat	22 (10.6)
Acidity	43 (20.7)
Body ache	33 (15.9)
Nausea vomiting	12 (5.8)

Table 4: Reasons for Self-medication in the study participants

Reason for Self-medication	Number (%)
Minor complaints	164 (78.8)
Lack of time	41 (19.7)
Economic reasons	8 (3.8)
Doctor in family	3 (1.4)

Table 5: Association between self-medication and gender of study participants

Gender	Yes (%)	No (%)	Total
Male	83 (30.1)	193 (69.9)	100
Female	125 (39.4)	192 (60.6)	100

$X^2 = 5.676$ p = 0.017

Table 6: Association between socio-economic status* and self-medication

Socio-economic Class	Yes (%)	No (%)	Total
I – Upper	61 (45.9)	72 (54.1)	133
II – Upper middle	66 (37.7)	109 (62.3)	175
III – Lower middle	64 (31.8)	137 (68.2)	201
IV – Upper lower	17 (20.2)	67 (79.8)	84

$X^2 = 16.838$ p = 0.001

*None of the participants belonged to lower class (V).

It was seen that about 80% of the people practicing self medication did so because they felt that the problem was minor complaint and can be handled without consulting a medical practitioner.

In majority of the cases, the respondents continued to use the drugs that had been prescribed earlier by their doctors' 51.4% (107). About 25.5% (53) of the respondents' got to know about the drug from the pharmacists. In 16.3% (34) individuals, knowledge about the drug was obtained from their friends or family members.

The association between self medication and socio-demographic variables was ascertained by the chi-square test. Self medication was prevalent more among females and among the upper socio-economic strata as shown in Table 5 and Table 6. These associations were found to be statistically significant. Association with other socio-demographic variables like age was not found to be significant in the present study.

DISCUSSION

In this study, overall prevalence of self-medication was found to be 35.1% which is consistent with some studies[5, 12] but not with others.[2,3,4,6] This may be due to variations in the definition, recall period considered, methodology and different socio-economic and demographic variables of different regions. While prevalence of self-medication shows a wide variation, patterns of drug use and factors determining self-medication remain the same.

In concordance with various other studies, paracetamol and analgesics were commonly used[8] while antimicrobials were not frequently used. This is in contrast to other studies which report a high prevalence of antimicrobial usage.[2,4,11&13] Headache and fever were the most common symptoms reported for practice of self-medication.[2,4,13&14]

Reasons for Self-medication were that the illness is minor enough for Self-care or lack of time which was similar to reasons cited in various studies.[2,4&11] Common sources for drug information included past prescriptions and pharmacist`s reference as seen in various past literature.[11]

Self-medication was associated with gender and socio-economies status in our study. Self-medication was more prevalent in women.[14] and in the higher socio-economic strata[14] as seen in various other studies.

CONCLUSION

One third of the study participants practiced self-medication**.** NSAIDs were the most commonly used drugs for self-medication. Headache and fever were the most common symptoms, for which self-medication was practiced. The main reasons for self medication were given as their perception of the illness not being serious and in majority of the respondents' continued to use the drugs that had been prescribed earlier by their doctors. Self-medication was found to be more prevalent among females and in the higher socio-economic strata.

RECOMMENDATIONS

Self-medication is rapidly increasing and evolving into a major public health concern. Health education activities among public to create awareness regarding hazards of self-medication should be organized. Strict legislations should be introduced and enforced to monitor sale of over the counter drugs. Awareness regarding adverse effects of self-medication and doctors and pharmacies perceptions about self-medication was not considered in the present study which could be considered in future studies. Qualitative methods like focus group discussions and in depth interviews to know probe reasons for self-medication could be carried out.

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