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Evaluation of Self-Medication Practices and its Associated Factors among Urban Population of Ahmedabad City, Gujarat

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ABSTRACT

Introduction: Self medication is an important issue for health authorities especially in developing countries like India. The study was conducted to assess the socio-demographic profile of urban population and also to assess the trend of self-medication practices & its associated factors.

Methodology: A cross sectional study was conducted among urban population of central and north zone of Ahmedabad municipal Corporation (AMC) area during January to April 2015. Pretested performa was used for study. Among 250 houses, total 647 people were selected for study after their informed consent.

Results: Out of 647 people, males were 54.3% & females were 45.7%. Majority of people were belongs to 25 to 35 yr. age group (27.2%). Majority of people were found in S-E class-3. Majority of male were used NSAIDS (74.6%) and female were used Anti emetics (81.8%) for self-medication practices. Most common influencing factor was media (37.9%) & pharmacist (41.9%) among upper & lower S-E class respectively.

Conclusions: Mean age was 37.4 ± 2.6. Most common reason for self-medication was time constrains & high consulting fees of doctors among upper & lower S-E class respectively. Knowledge on different drug related reactions were shows significant different among both S-E classes (P: <0.0001).

Key words: Self-medication practices, urban population, Ahmedabad

INTRODUCTION

Self medication/over the counter (OTC) drugs is an important concern for health authorities at global level.[1] Medication usage refers to the act of consuming medicines for prevention, diagnosis or treatment of diseases. Ideally, consumption of correct medication should be monitored by healthcare personnel & patients. Any h

armful symptoms should be reported back to the healthcare personnel who can further diagnose and prescribe the needed drugs to alleviate the unwanted symptoms.[2] William Osler once said that "a desire to take medicine is perhaps a great feature which distinguishes man from animals.[3]" Self medication is an important health issue especially in developing countries like India.[4,5] In developing countries, self medication is very common and which is frequently misused in health care services by the patients.

Various studies reported that self medication may lead to delay in care seeking which results in paradoxical economic loss due to delay in the diagnosis of underlying conditions and appropriate treatment.[6] Life threatening situation may created sometimes due to delay in actual treatment because of self medication practices. Practicing self medication for drugs like antibiotics might lead to drug resistance; And hence, there is need to be a check on these practices.[7,8]

On the other aspect, self medication practices cannot be considered as entirely harmful.[9] In majority of the hill, tribal regions and other hard to reach

areas where there is a quite shortage of health services & human resources, patients are still dependent on self medication practices for minor symptoms.[10,11] Very few studies were conducted at community level in India to assess the prevalence of self medication practices.[12,13] Studies of such nature will provide useful insight on the reasons for which patients resort to this practice and might help the policy makers and regulatory authorities to streamline the process of drug regulations, updating the list of essential medicines, and safety issues of over the counter drugs.[14] So, the study was conducted to assess the socio-demographic profile of urban population and also to assess the trend of self-medication practices & its associated factors.

METHODOLOGY

A cross sectional study was conducted among urban population of central and north zone of Ahmedabad municipal Corporation (AMC) area. Total 250 houses were purposively selected for study from above two zones. First house was selected as per the Head count survey data of respective areas. The selection of houses was continuous and done on the basis of availability and consent of family members. Details regarding study and their objectives were discussed with family members and informed consent was taken prior to study. Among those houses where family members denied for the same were excluded from study. The study was conducted during January to April 2015. Fully structured performa, which was specially designed in local language and pre-tested, was used for data collection purpose. The performa has different components e.g. socio-demographic profile of population, types of over the counter drugs (allopathic) used by them, reasons & influencing factors for self-medication etc. After the data collection, each person was taught on different adverse aspects of self medication practices. IEC materials e.g. pamphlets, charts and photographs etc. were used to improve the knowledge of people on adverse drug reaction and drug resistance. Advices were given to avoid such self medication practices. Post data collection, data entry was carried out and data analysis was done by using appropriate statistical software and applying suitable statistical tests e.g. Chi-square test, proportion, Mean etc.

RESULTS

Among 250 houses, total 647 people were selected for study. The selection of people was done on the basis of their availability and consent at time of data collection. Out of 647 people, males were 351 (54.3%) and females were 296 (45.7%). Table-1 shows socio-demographic profile of study group. Majority of people were belong to 25 to 35 yr. age group (27.2%) followed by 35 to 45 yr. age group (21.3%). Mean age of study group was 37.4 ± 2.6. Majority of them were studied up to primary level (35.5%). Very few (5.9%) were found illiterate. According to Modified Prasad's socio-economical classification[16], majority of people were belong to class-3 (36.3%) followed by Class-4 (23.6%). Gender wise usage of different category of Non prescribed/OTC drugs was shown in table-2. Majority of males were used Non steroidal anti-inflammatory drugs (NSAIDS) (74.6%) followed by drugs for cough (58.4%). Among females, Anti-emetic drugs usage was highest (81.8%) followed by anti-histaminic drugs usage (71.3%). Significant difference was noted for gender wise usage of non prescribed drugs of different category (P: <0.0001). The trend of different socio-economical classes for self medication practices were shown in table-3.

Different reasons, factors and knowledge on self medication practices were compared among different S-E classes. Most common reason for self-medication among upper S-E class (1, 2, 3) population was time constrain (29.7%) followed by easy availability of drugs (17.5%). Whereas commonest reasons among lower S-E class (4, 5) were high consultation fees (48.1%) and minor illness concept (17.4%). Significant statistical difference was noted between different S-E class and various reasons for self-medication (P: <0.0001).

Table-1: Socio-demographic profile of study group (N= 647)

Socio-demographic profile	Participants (%)
Age Distribution	
15 to 25 year	112 (17.3)
25 to 35 year	176 (27.2)
35 to 45 year	138 (21.3)
45 to 55 year	104 (16.1)
55 to 65 year	98 (15.1)
≥ 65 year	19 (2.9)
Gender	
Male	351 (54.3)
Female	296 (45.7)
Education level	
Illiterate	38 (5.9)
Primary	230 (35.5)
Secondary	142 (21.9)
Higher secondary	126 (19.5)
Graduate	77 (11.9)
Post graduate	34 (5.3)
S-E classification	
Class- I	28 (4.3)
Class- II	114 (17.6)
Class- III	235 (36.3)
Class- IV	153 (23.6)
Class- V	117 (18.1)

Table-2: Gender wise comparison on usage of Non prescribed drugs* (N= 647)

Category of Drugs	Male (%)	Female (%)	Total (%)
NSAIDS	262 (74.6)	203 (68.6)	465 (71.9)
Antibiotics	114 (32.5)	86 (29.1)	200 (30.9)
Vitamin & Minerals supplements	96 (27.4)	189 (63.9)	285 (44)
Sedatives-Hypnotics	83 (23.6)	97 (32.8)	180 (27.8)
Anti diarrhoeal	98 (27.9)	164 (55.4)	262 (40.5)
Laxatives	154 (43.9)	75 (25.3)	229 (35.4)
Drugs for GI ulcers/acidity	198 (56.4)	83 (28)	281 (43.4)
Anti histaminics	173 (49.3)	211 (71.3)	384 (59.4)
Drugs for cough	205 (58.4)	84 (28.4)	289 (44.7)
Anti emetics	51 (14.5)	242 (81.8)	293 (45.3)
Drugs for skin diseases	84 (23.9)	134 (45.3)	218 (33.7)

*Multiple answers, NSAIDS= non steroidal anti-inflammatory drugs; Chi square value: 323.4, P value: <0.0001

Table-3: Comparison among different S-E class for self medication practices (N= 647)

Particulars	Class-I, II, III (%)	Class-IV, V (%)	Total (%)
Reasons for self medications			
Easy availability of drugs	66 (17.5)	25 (9.3)	91 (14.1)
Quick relief from symptoms	54 (14.3)	34 (12.6)	88 (13.6)
Minor illness	63 (16.7)	47 (17.4)	110 (17)
Time constrain in clinics	112 (29.7)	11 (4.1)	123 (19)
Fear of doctors	50 (13.3)	23 (8.5)	73 (11.3)
High consultation fees	32 (8.5)	130 (48.1)	162 (25)
Chi square value: 164.3, P value: <0.0001			
Influencing factors for self medications			
Media	143 (37.9)	41 (15.2)	184 (28.4)
Relatives	79 (21)	46 (17)	125 (19.3)
Friends	46 (12.2)	58 (21.5)	104 (16.1)
Pharmacists	23 (6.1)	113 (41.9)	136 (21)
None (self awareness)	86 (22.8)	12 (4.4)	98 (15.1)

Table-4: Knowledge of S-E classes regarding self medication practices (N= 647)

Knowledge on	Class-I,II,III		Class-IV,V		Chi-square	P value
	Present	Absent	Present	Absent		
Adverse Drug Reaction	213	164	98	172	25.7	<0.0001
Drug resistant	140	237	22	248	70.4	<0.0001
Expiry Date	272	105	96	174	85.8	<0.0001
Contraindication	102	275	13	257	53.2	<0.0001

There were various influencing factors for self-medication practices. Media (37.9%) was commonest influencing factors among upper S-E classes. The pharmacists (41.9%) and friends (21.5%) were majority of influencing factors among lower S-E classes. Significant statistical association was noted between different S-E class and various influencing factors (P: <0.0001). Knowledge on different drugs related events e.g. their reactions, resistance, contraindication etc. were also compared among different S-E classes (table-4). Higher level of drug related knowledge among upper S-E classes was observed. Statistically significant difference was also noted regarding knowledge on drugs among different S-E classes (P: <0.0001).

DISCUSSION

Self-medication can be defined as obtaining and consuming drugs without the advice of a physician either for diagnosis, prescription or surveillance of treatment.[3] In current study out of 647 people, males were 54.3% and females were 45.7%. Majority of people were belonging to 25 to 35 yr. age group. Mean age of study group was 37.4 ± 2.6. As per the National Family Health Survey (NFHS-4), 2015-16 data on literacy rate of India, 85.6% men and 68.4% women were literate.[15] current study shows 94.1% people were literate (men- 97.7%, women- 89.9%). Study reveals that majority of people were belongs to middle class group (class-3 & class-4). Drugs classified as "over the counter (OTC)" can be purchased without prescription and

many a times might save time and money for the patients.[9] Gender wise usage of non prescribed / OTC drugs was shown in table-2. As per the results, gender wise usage of OTC drugs shows significant difference (P: <0.0001). Among different OTC drugs, males were used NSAIDS & drugs for cough whereas females were used anti emetic & anti histaminics drugs most of times as compare to other drug groups. Few studies were conducted at community level in India to assess the various reasons, influencing factors, awareness etc. for self-medication practices.[12,13] This might help the policy makers and regulatory authorities to streamline the process of drug regulations, updating the list of essential medicines, and safety issues of over the counter drugs.[14] current study also reveals above factors in different S-E class and significant statistical difference were also noted (table-3). Time constrain & easy availability of drugs were most common reasons for upper class people whereas high consulting fees of doctors & assumption of minor severity of illness were common reasons for lower S-E class. Media was most common influencing factors for upper class whereas pharmacists & friends were common influencing factors for lower S-E class. Knowledge on different drug related reactions were also checked and better results were noted for upper S-E class (table-4). Statistical significant difference between different S-E class and various factors of self-medication practices were noted (P: <0.0001).

CONCLUSIONS & RECOMMENDATIONS

Males (54.3%) were higher than female. Mean age was 37.4 ± 2.6 noted. Very few (5.9%) were found illiterate. Majority of people were belongs to class-3 (36.3%) and Class-4 (23.6%) as per Modified Prasad's socio-economical classification. Among different OTC drugs, majority of males were used NSAIDS & drugs for cough whereas females were used anti emetic & anti histaminics drugs. Most common reason for self-medication was time constrains & high consulting fees of doctors among upper & lower S-E class respectively. Commonest influencing factor was media & pharmacist among upper & lower S-E class respectively. Higher level of drug related knowledge among upper S-E classes was observed. Significant difference between different S-E class and various factors of self-medication practices were noted (P: <0.0001). Community awareness on adverse self-medication practices should be emphasized.

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