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PREVALENCE AND PATTERN OF SELF-MEDICATION PRACTICES IN URBAN AREA OF SOUTHERN RAJASTHAN

Manish Jain[1], Rahul Prakash[2], Dhriti Bapna[1], Rohit Jain[1]

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Author's Affiliation:
[1]Resident; [2]Professor, Dept. of Community Medicine, RNT Medical College,, Udaipur, Udaipur, Rajasthan

Correspondence:
Dr. Manish Jain
Email: manishchabra7@gmail.com

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ABSTRACT

Background: Self-medications is widely practiced in both developed and developing countries. Inappropriate self-medication results in increases resistance of pathogens, wastage of resources, and serious health hazards.

Objectives: Present study was conducted to determine the prevalence, pattern and factors associated with self-medication among general population of an urban area of Sothern Rajasthan.

Materials and Methods: A cross sectional community based study was conducted among general population in urban field practice area of Department of community medicine, RNT Medical College, Udaipur, Rajasthan from May 2015 to August 2015. Individuals aged 18 years and above were included as study participants using Simple random method of sampling.

Results: Out of total 440 study participants, 324 (73.6%) had used self-medication within last three months recall period. The practice of self-medication was more common among younger age groups, male gender and higher levels of education. Paracetamol (73.77%) and other analgesics (41.98%) were most commonly used drugs. Most common symptoms warranting self-medication were fever (75.31%) and headache (62.04%).

Conclusion: Rising prevalence of self-medication is a matter of serious concern. IEC activities should be strengthened among general population to minimize the practice of self-medication.

Key words: Self-medication, drugs, prevalence, practice

INTRODUCTION

Self-medication has been defined as obtaining and consuming one (or more) drug (s) without the advice of a physician either for diagnosis, prescription or surveillance of the treatment.[1] It can also be defined as the consumption of non-prescription medicines by people on their own initiative.[2] 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 India.[3]

The WHO Expert Committee on National Drug policies in 1995 stated that Self-medications is widely practiced in both developed and developing countries. Medications may be approved by the national drug regulatory authority as being safe for self-medication. These medicines are normally practiced for the prevention or treatment of minor ailments or symptoms, which usually do not justify medical consultation. In some chronic or recurring illnesses, self-medication is possible with the doctor retaining an advisory role after initial diagnosis and prescription.[4]"

It has been recognized that inappropriate and uncontrolled self-medication results in increases resistance of pathogens, wastage of resources, and serious health hazards such as adverse drug reactions, prolonged suffering and drug dependence. On the other hand, if done appropriately, self-medication can save the time spent in waiting to consult a doctor, can readily relieve acute medical problems and emergencies, may be economical and can even save lives in acute conditions. It is now accepted that self-care in the form of appropriate self-medication can be beneficial for patients, community, healthcare providers, the pharmaceutical industry and governments. However, it is worth noting that self-medication must be accompanied by appropriate health information.[5]

Self-medication is an age old practice among general population. Urge of self-care, feeling of sympathy towards sick family members, lack of health services, inaccessibility to health services, poverty, ignorance, misbelieve, extensive advertisement and availability of drugs in other than medical shops are responsible for rising trend of self-medication. Other reasons mentioned for self-medication in various literatures are non-seriousness of illness, previous experience of similar illness, economic considerations and lack of availability of healthcare personnel.[6] Against these backgrounds, the present study was carried out to determine the prevalence, pattern and factors associated with self-medication among general population of an urban area of Udaipur district, Rajasthan.

METHODS & MATERIAL

A cross sectional community based study was conducted among general population in Dhanmandi urban field practice area of Department of community medicine, RNT Medical College, Udaipur, Rajasthan. Study was done from May 2015 to August 2015. The sample size was calculated assuming 50% prevalence of self-medication practice with 10% relative precision and 95% confidence level. The calculated sample size was 400. Considering a non-response error of 10%, final sample size was calculated to be 440. Individuals aged 18 years and above were included as study participants using Simple random method of sampling. People aged <18 years and who did not provided complete information were excluded from the study. Purpose of the study was fully explained to study participant and informed verbal consent was taken. A pretested, Semi-structured questionnaire was used for data collection regarding socio-demographic details like age, sex, education and practices of self-medication within three months recall period, symptoms for which drugs were used, sources of information for self-medication and reason for self-medication. The data were coded, tabulated and analyzed using Microsoft Excel and epi-info 7 software. Descriptive results were expressed as frequency and percentage. Chi-square test was used for statistical analysis. P value of less than 0.05 was considered significant.

RESULTS

Out of total 440 study participants, 324 (73.6%) had used self-medication within last three months recall period. The practice of self-medication was more common among younger age groups 18-30 years (82.9%) and 31-40 years (83.4%) and there was a significant association between age factor and self-medication ($p < 0.05$). Prevalence of self-medication was more common among males as compared to females ($p < 0.05$). Significant association was also found between education level and Practice of self-medication, where participants having education of graduate and above were practicing self-medication more compared to participants having education less than secondary or illiterate persons ($p < 0.05$) (Table 1).

Table 1: Distribution of study subjects according to self-medication practices (n = 440)

Participant characteristics	Practicing Self medication		P value
	Yes (%)	No (%)	
Age Group (years)			
18-30	87 (82.9)	18 (17.1)	**<0.05**
31-40	121(83.4)	24 (16.6)	
41-50	59 (67.0)	29 (33.0)	
51-60	35 (54.7)	29 (45.3)	
>60	22 (57.9)	16 (42.1)	
Gender			
Male	199(77.7)	57 (22.3)	**<0.05**
Female	125(67.9)	59 (32.1)	
Level of Education			
Illiterate	15 (42.8)	20 (57.2)	**<0.05**
Primary	60 (68.2)	28 (31.8)	
Upper Primary	79 (69.3)	35 (30.7)	
Secondary/Higher secondary	109(83.2)	22 (16.8)	
Graduate and Above	61 (84.7)	11 (15.3)	
Total	**324(73.6)**	**116(26.4)**	

Figure in parenthesis indicate percentage

Most common symptoms warranting self-medication were fever (75.31%) and headache (62.04%), followed by cough and common cold (43.21%) (Table 2). Paracetamol (73.77%) and other analgesics (41.98%) were the most commonly used drugs followed by cough and cold remedies (29.94%) for self-medication among respondents. 20.37% of the participants using self-medication reported practice of antibiotics (Table 3).

Table 2: Symptoms reported for Self-medication (n = 324)

Symptoms	Frequency* ((%)
Fever	244 (75.31)
Headache	201 (62.04)
Cough/Common Cold	140 (43.21)
Body ache	113 (34.88)
Gastritis/Dyspepsia	103 (31.79)
Diarrhea	64 (19.75)
Others	89 (27.47)

* Multiple responses

Table 3: Drugs used by the respondents for self-medication (n = 324)

Drug Class/ Drug	Frequency* ((%)
Paracetamol	239 (73.77)
Other NSAIDs	136 (41.98)
Cough/Cold remedies	97 (29.94)
Antibiotics	66 (20.37)
Drugs for APD	89 (27.47)
Laxatives/antidiarrheal agents	42 (12.96)
Anti-allergic	58 (17.90)
Others	32 (9.88)

* Multiple responses

Table 4: Source of Information about Drugs Used in Self-medication (n = 324)

Source of Information	Frequency* (%)
Pharmacist	141 (43.52)
Previous Prescription of Doctor	88 (27.16)
Own experiences	65 (20.06)
Family members/Friends	55 (16.98)
Internet	17 (5.25)
Advertisements	15 (4.63)

* Multiple responses

Table 5: Reasons for Self-medication (n = 324)

Reasons	Frequency(%)
Mild illness/Doctor's advice not needed	128 (39.51)
Emergency use	51 (15.74)
Lack of time	41 (12.65)
convenience	64 (19.75)
Others	47 (14.51)
Total	**324 (100)**

The respondents practicing self-medication got information about drugs mostly through local pharmacists (43.52%) and previous prescription of doctor for similar complaints (27.16%) followed by family members and friends (16.98%). 20.06% reported their own previous experiences as a source of information for self-medication. Internet as a source was reported by 5.25% respondents (Table 4). Majority of the participants practicing self-medication (39.51%) reported doctor's advice not necessary for minor illness as a chief reason for self-medication. 15.74% participants were practicing self-medication in emergency. 19.75% reported convenience and 12.65% reported lack of time as a reason for self-medications (Table 5).

DISCUSSION

The present study was carried out to determine the prevalence, pattern and associated factors of self-medication among general population of an urban area. The prevalence of self-medication was found to be 73.6% in present study which is comparable to the study carried out by Shyam Sunder Keshari et al (2014)[7] in which 69.6% participants reported self-medication. Prevalence of our study was higher than the study by Kalaiselvi Selvaraj et al (2014)[8] in coastal region of urban Puducherry, in which they had shown 11.9% prevalence of self-medication to allopathic medication in preceding 3 months. However, Varun kumar et al (2015)[9] reported that 92.8% people took medicines without doctor's prescription in an urban area of Delhi.

Age factors, sex, and education status were found to be significantly associated with practice of self-medication in present study. The prevalence of self-medication was more common among younger age groups. This is similar to findings of studies by Shyam Sunder Keshari et al[7] and Varun Kumar et al[9]. In present study, males (77.7%) were practicing self-medication more than females (67.9%) in contrast to study by Pankaj Gupta et al (2011)[5] in which Prevalence was significantly more in the sampled females (59.8%) than in males (48.9%). 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 by Varun Kumar et al[9].

In present study, most common symptoms warranting self-medication were fever and headache followed by cough and common cold. These are consistent with the results of other studies[5,7,8]. Paracetamol (73.77%) and other NSAIDs analgesics (41.98%) were the most commonly used drugs for self-medication among respondents in this study. Antibiotics were used by 20.37% of the participants using self-medications. Paracetamol (76.2%) was the most commonly used drug followed by cough syrup (58.9%) in the study by Varun Kumar et al[9]. Antimicrobials were used by 32.7% participants in study by Shyam Sunder Keshari et al[7].

In present study, local pharmacists (43.52%), previous prescription of doctor for similar complaint

(27.16%) and family members and friends (16.98%) were the major sources of information for self-medication similar to findings of study by Pankaj Gupta et al[5] while in contrast to study by Shyam Sunder Keshari et al[7] in which previous doctor's prescription (72.6%) was the major source of self-medications information in the study. In present study, most common reason reported by participants for self-medication was doctor's advice not necessary in minor illness (39.51%). In study by Pankaj Gupta et al[5], monetary constraint was reported by 40.5% participants practicing self-medications.

CONCLUSION AND RECOMMENDATIONS

Rising Prevalence of self-medication is a matter of serious concern. Non-seriousness of the illness is the most common reason and pharmacists are the most common source of knowledge for practice of self-medication. IEC activities should be strengthened among general population to minimize the practice of self-medication. People must be made aware about side effects of self-medications and its importance. Further studies need to be carried out among general population to understand the attitude of people towards self-medication and various factors influencing the practice of self-medication.

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