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Original Research Article.

Self-medication (OTC) Drugs in Urban Slum Dwellers in Pune City, Maharashtra

Amit Kumar[1], E Srikaanth Reddy[1*], Anuj Singh[1], Ankit Singh[1], Prasad Pore[2]

[1]**Assistant Professor, Department of Community Medicine,**
United Institute of Medical Sciences, Prayagraj, Uttar Pradesh, India.
[2]**Professor, Department of Community Medicine,**
Bharati Vidyapeeth (DTU) Medical College, Pune, Maharashtra, India.

ABSTRACT

Background: In developing nations such as India, the availability of a vast variety of drugs, along with insufficient and poor health facilities, has resulted in a rise in the utilization of drugs for self-medication. A lack of understanding of their negative effects and interactions, particularly during physiological situations such as lactation and pregnancy, might have serious consequences.

Objectives: The main motive of this research was to find out the prevalence of self-medication, the side effects of self-medication, along with causes for self-medication among the urban slum dwellers population in Pune.

Results: There was a 68.66 % self-medication prevalence. Practice of self-medication has been suggestively higher in males, illiterate, and participants belonging to lower socio-economic status. The prevalence of side effects after self-medication was 2.6%.

Conclusion: Prevalence of self-medication has been higher. So, to avoid this situation, a proactive strategy should be implemented.

Keywords: Self-Medication Practice, Urban Slums Dwellers, Prevalence.

***Correspondence to:**

Dr. E Srikaanth Reddy,
Department of Community Medicine,
United Institute of Medical Sciences,
Prayagraj, Uttar Pradesh, India.

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INTRODUCTION

Self-medication was described as an acquisition and utilization of one (or more) drugs without the guidance of physician, whether for the purpose of prescription, diagnosis, or evaluating the treatment process.[1] Self-medication was reported to be on the rise around the world. People all around the globe cure sickness in one of two ways: they either wait for the condition to run its course or utilize a home remedy.[2] The term "non-prescription" or "over the counter" (OTC) refers to medicines that may be bought without doctor's prescription from pharmacies that are not affiliated with a hospital or medical facility. Products that are not prescribed by a physician are available in supermarkets as well as other retail stores in several nations.[3] The irrational use of pharmaceuticals has piqued the interest of the general public and professional communities. Although OTC drugs are proposed for self-medication and have been shown to be effective and safe, their inappropriate use because to a lack of awareness about their adverse effects as well as interactions may have severe consequences.[4] Self-medication, according to the World Health Organization's Expert Committee on National Drug Policies in 1995, is generally done in both developed along with developing nations.[1]

Self-medication is a significant public health concern in developing nations including India, where universal access to health care has not yet been realised. This is the most common as well as preferred ways of treatment used by patients in these countries.[5] Self-medication, on the other hand, is far from being a fully risk-free technique, particularly in the event of non-responsible self-medication. Self-medication practices potential risks are at risk of abuse and dependence, masking of a severe disease incorrect therapy choice, incorrect dosage, incorrect administration manner, dangerous drug interactions, uncommon but serious adverse reactions, delays in seeking medical advice when required, and incorrect self-diagnosis.[6]

Drugs that are prone to self-medication include analgesics, antimalarial, antibiotics and cough syrups, among others.[7] Use of self-administered eye drops for ophthalmic conditions is a common practice in rural populations.[8]

Factors influencing frequency of self-medication in the previous studies are age, educational level, family attitudes, advertising of drug manufacturers, legislation regulating dispensing and sale of drugs, previous experiences with the symptoms or disease,

significance attributed to the disease.[9] For many patients, it is important to be able to self-administer their medications successfully as they will often be expected to do so once they are discharged from hospital.[10] It has been correctly pointed out by the WHO that appropriate self-medication may aid in the treatment and prevention of diseases, which do not need medical consultation, as well as it is a less expensive alternative for curing minor infections.[11,12] Antibiotics are considered as wondered drug (NPCAR, 2011) and it comes under Schedule H of the drug and cosmetics act of India, which is of use when given by a registered medical practitioner.[13] The most common problems associated with self-medication were the development of drug resistance, pathogenic resistance, drug-drug interactions and complications due to adverse drug reactions, polypharmacy and prolonged illness.[14]

Several factors have been suggested to explain the inappropriate use of antibiotics in children: over-prescription by physicians easy access to antibiotics for self- medication and parents limited knowledge about antibiotics.[15] Drug retail shops frequently serve as the public's first point of contact with the healthcare system.[16] Self-medication has a broad impact and has its roots from two major contributors, i.e. economic reluctance and the sociocultural behavior of the population.[17] The WHO has also recognized the validity of self-medication in a variety of settings. In 1995 the WHO Expert Committee on National Drug policies stat ed: Selfmedication is widely practiced in both developed and developing countries.

Medications may be approved as being safe for self-medication by the national drug regulatory authority.[18]

MATERIALS AND METHODS

A prospective cross-sectional has been performed among urban slums dwellers under the field practice area of UHTC in Pune City, Maharashtra. Total 158 slum houses were included in the study after proper written informed consent from the Head of Family in local language. Head of the family/ adult member in household residing in slum who understand at least Hindi/ Marathi Language and gave proper written consent were included in the study. No proper consent and not availability of any adult member in family at the time of interview were excluded in the study.

SPSS software version 25.0 has been used for analysing the data, which was put into a Microsoft Excel sheet. Calculations were made for qualitative data, including frequency and percentage distributions. The standard deviation and mean were determined for quantitative data. The Chi-square test has been utilised.

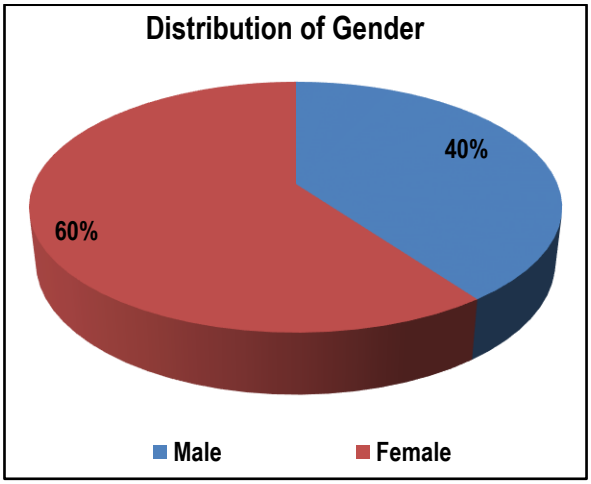
RESULTS

The research had been carried out among urban slum residents in Pune Taluka, India, at the field practise area of the UHTC. The self-medication practice has been significantly higher among Males (57.28%) and it's significant (<0.001).

In this study 60% are females and 40% are male. 69 participants are studied up to 5 to 10 standards, 53 participants are studied up to 10 to 12 standard, 24 participants are illiterate, and 4 participants studied up to 1 to 4 standards.

The family income distribution distributed into 4 categories in which 78 participants are earned more than 10000, 59 participants earned between 6000 to 10000 while 13 participants earned between 3000 to 6000.

35% participants have more than 5 family members whereas 65% have less than 5. The socio-economic statuses of the families are class I & V have 0 whereas class II, III, IV have 38, 45, 38 in frequencies. As per Table: 1 (68.7%) participant practice self-medication, maximum (33%) participants took self-medication in the past 6 months. The most common complaints of participants are aches and pains followed by fever, runny nose, cough and sore throat. The selection of medicines of the participants are mostly recommendation by pharmacists, participants own experiences and left-over medicines. Generally, obtain medicines for the self-medication by the pharmacies and leftover from previous prescription. All the participants who practice self-medication are aware about the expiry date but (53.3%) participants always check the expiry date of the medicines. As per Table 2 Sometimes the participants (62%) change the dose of medication in which (53%) participant changes the dose of medication for improving the conditions and worsening the conditions, (33%) drug insufficient for complete treatment. 20.7% always switch the medicines during the course of self-medication while (28.7%) sometimes as per Table 3. The reasons of switch medicines during the course of self-medication. (68.7%) normally stop medication few days after the recovery, (52%) after symptoms disappear, (28.7%) after a few days regardless of the outcomes and only (36%) after consulting a pharmacist. Only (2.7%) participants had adverse reaction as per Table 4, when they took medicines for self-medications. Only (29.3%) participants consulted doctors for the adverse reaction. (68.7%) participants used Paracetamol followed by cough syrup, Omen and Amax. (4%) participants answered it a good habit.



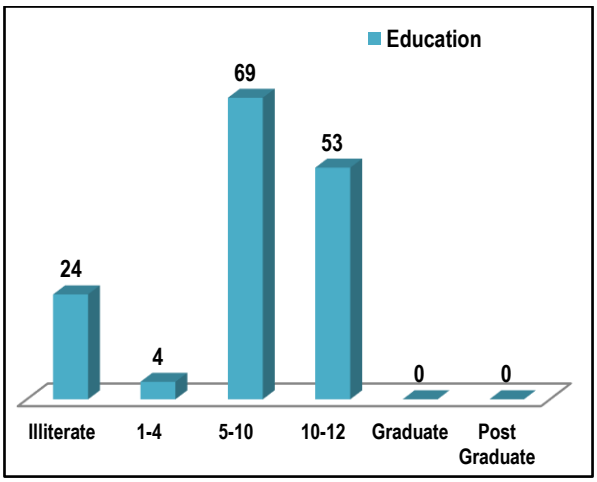


Table 1: Socio-demographic Profile

Variable Name	Categories	Frequency	Percent (%)
Gender	**Male**	60	40.0
	Female	90	60.0
Education	**Illiterate**	24	16.0
	1-4	4	2.7
	5-10	69	46.0
	10-12	53	35.3
	Graduate	0	0
	Postgraduate	0	0
Family Income Per Month	**<3000**	0	0
	3000-6000	13	8.7
	6000-10000	59	39.3
	>10000	78	52.0
No. of Family Member	**<=5**	98	65.33
	>5	52	34.67
"Socio-Economic Status"	**I**	0	0
	II	67	44.7
	III	45	30.0
	IV	38	25.3
	V	0	0

Table 2: Self Medication Behaviour

Variable Name	Categories	Frequency	Percent
Have you ever taken Self Medication?	**Yes**	103	68.7
	No	47	31.3
Self-medication in the past 6 Months	**1-5 Times**	30	29.1
	6-10 Times	34	33.0
	11-15 Times	21	20.4
	16-20 Times	18	17.5
Reason(s) of self-medication	**Cost saving**	97	64.7
	Convenience	66	44.0
	Lack of time	84	56.0
	Others(specify)	0	0
Complaint(s) did you use Self Medication	**Runny nose**	97	64.7
	Nasal congestion	93	62.0
	Cough	97	64.7
	Sore throat	62	41.3
	Fever	99	66.0
	Aches and pains	103	68.7
	Vomiting	19	12.7
	Diarrhoea	38	25.3
	Skin wounds	19	12.7
	Others(specify)	4	2.7
Selection of Medicines	**Recommendation by pharmacists**	103	68.7
	Opinion of family members	61	40.7
	Opinion of friends	0	0
	Your own experience	97	64.7
	Recommendation by net citizens	0	0.0
	Use of left-over medicines	72	48.0
	Previous doctor's prescription	47	31.3
	The advertisement	0	0.0
Consider when selecting Medicines	**Medicine Type**	23	15.3
	Medicine's Brand	0	0.0
	Medicine Price	103	68.7
	Indications for use	23	15.3
	Adverse reactions	0	0.0
	Given by Pharmacist	19	12.7
Obtain Medicines from for self-medication	**Pharmacies**	103	68.7
	Leftover from previous prescription	103	68.7
	Others(specify)	0	0.0

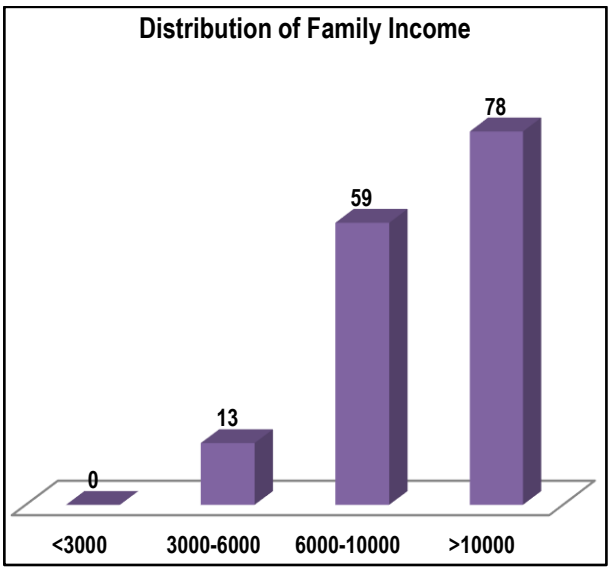
Table 3: Awareness on Self Medication

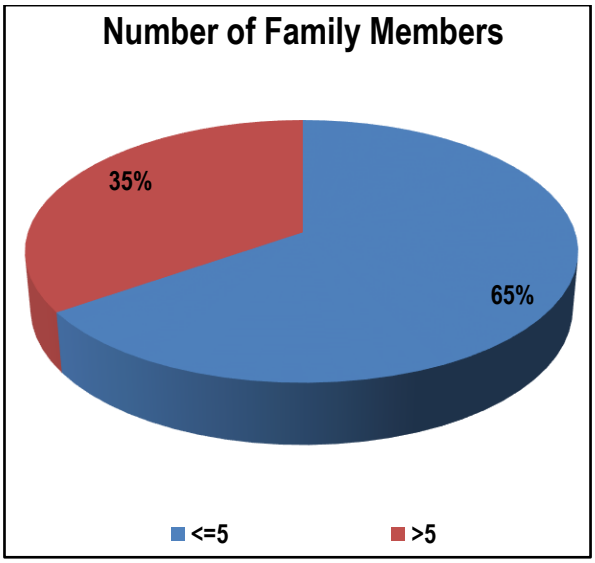
Variable Name	Categories	Frequency	Percent
Do you aware that medicines has expiry date?	**Yes**	103	68.7
	No	47	31.3
Check Expiry	**Yes, always**	80	53.3
	Yes, sometimes	23	15.3
	Never	0	0.0
Dosage of Medicines	**By checking the package insert**	0	0.0

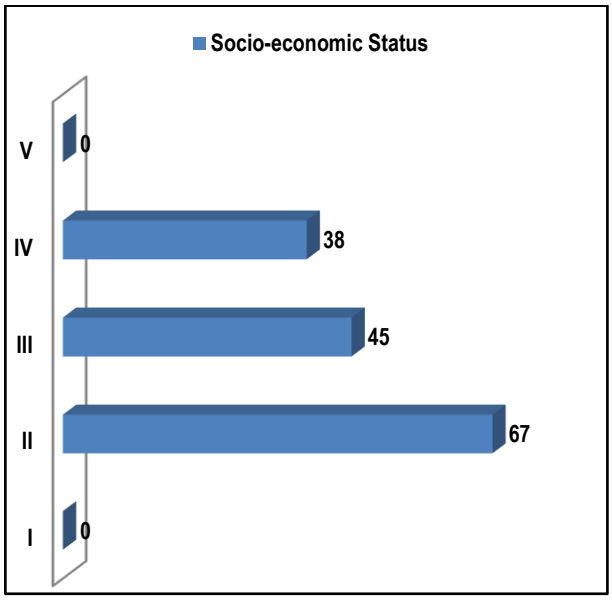
	By consulting a pharmacist	103	68.7
	By consulting family members/friends	99	66.0
	From the TV programs, books, magazines, or newspapers,	24	16.0
	From the Internet	0	0
Change in the dosage of Medicines	Yes, always	0	0
	Yes, sometimes	93	62.0
	Never	48	32
Change in dosage of Medicines during the course	Improving conditions	80	53
	Worsening conditions	80	53
	To reduce adverse reactions	0	0
	Drug insufficient for complete treatment	50	33
	Others(specify)	4	2.7
Ever switch Medicines during the course of self-medication	Yes, always	31	20.7
	Yes, sometimes	43	28.7
	Never	29	19.3
Switching of Medicines during the course	The former Medicines did not work	74	49.3
	The former Medicines ran out	74	49.3
	The latter one was cheaper	19	12.7
	To reduce adverse reactions	0	0
	Others(specify)	140	93.3

Table 4: Knowledge of Adverse Drugs Reaction

Variable Name	Categories	Frequency	Percent
When did you normally stop taking Medicines	After a few days regardless of the outcome	43	28.7
	After symptoms disappeared	78	52.0
	A few days after the recovery	103	68.7
	After antibiotics ran out	0	0
	At the completion of the course	0	0
	After consulting a doctor/pharmacist	54	36.0
	Others(specify)	0	0
adverse drug reaction	Yes	4	2.7
	No	99	66.0
Do for the adverse reactions	Stopped taking Medicines	6	4.0
	Switched to another Medicines	0	0
	Consulted pharmacy staff	47	31.3
	Consulted a doctor	44	29.3
	Consulted family members/friends	6	4.0
	Nothing	31	20.7
	Others(specify)	0	0
Write down the names of Medicines you have ever taken for Self-Medication	Paracetamol	103	68.7
	Amax	19	12.7
	Cough Syrup	28	18.7
	Omez	23	15.3
Opinion about self-medication	Is it good habit	6	4.0
	No opinion	93	62.0
	Can be done in emergency	23	15.3
	Any other	0	0







DISCUSSION

The present study showed prevalence of 68.66%. Similar prevalence was seen in Uttar Pradesh (50%), Erode (62%), Puducherry (71%).[19-21] Many studies conducted showed that were similar in accordance with age like in Rajasthan (50%)[1], Delhi (76.1%)[8], Pakistan (84.3%).[17] Previous studies suggested that among the age groups many were found to be ill-literate.

The present study shows that 16%were illiterate. Study done in Southwest Nigeria by K P Osemene suggested that 18.8%were illiterate. Similar ill-literacy was reported in urban slum dwellers of Hyderabad, India during a study done by Dr, Sushmakatkuri (22%).[22]

The present study showed that more than half (68.7%) had taken self-medication which is similar to the studies done in Rajasthan[1], Karnataka[4], Serbia[9], Hyderabad, India.[22] The current study showed that the respondents had awareness (68.7%) on expiry dates while purchasing OTC which differs from a study done on urban slum dwellers in Hyderabad, India by Katkuri S et al.[22]

The study showed that more than half (68.7%) had self-medication complaints like Fever (66%), Cold (41%), Cough (64.7%). Similar results were seen in studies conducted by Manish Jain[1], Kumar CA et al[4], Biplab Pal[13], Perera P.P.R[19], Katkuri S et al.[22] The study shows that 68.7% were aware of the expiry date. Similar studies were reported in Ghosh, A., Biswas, S., Mondal, K., Haldar, M., & Biswas, S. (2015)[12], Gupta, P., Bobhate, P. S., & Shrivastava, S. R. (2011).[18]

Of which among the self-medication much larger proportions had reported Head ache as the single largest cause with 68.7%.Similar reports were also identified by Jain, M., Prakash, R., Bapna, D., & Jain, R. (2015)[1], Sharma, D., Gurung, D., Kafle, R., & Singh, S. (2017)[2], Katkuri, S., Chauhan, P., Shridevi, K., Kokiwar, P., & Gaiki, V. (2016)[3], Belachew Gutema, G., Alemayehu Gadisa, D., Fikadu Berhe, D., Hadgu Berhe, A., Ghezu Hadera, M., Solomon Hailu, G. Abebe Kidanemariam, Z. (2011).[4] Yu, M., Zhao, G., Stålsby Lundborg, C., Zhu, Y., Zhao, Q., & Xu, B. (2014).[15] S, R. M.(2015).[23] Ashok Kumar, C., & Revannasiddaiah, N. (2018).[20]

Self-medication for Fever according to this study was reported in 66% similar results in studies were seen in by Jain, M., Prakash, R., Bapna, D., & Jain, R. (2015)[1],Sharma, D., Gurung, D., Kafle, R., & Singh, S. (2017)[2],Katkuri, S., Chauhan, P., Shridevi, K., Kokiwar, P., & Gaiki, V. (2016).[3], Belachew Gutema, G., Alemayehu Gadisa, D., Fikadu Berhe, D., Hadgu Berhe, A., Ghezu Hadera, M., Solomon Hailu, G, Abebe Kidanemariam, Z. (2011).[4] Murti, K., Gupta, A. K., Choudhury, U., Rastogi, M., Pandey, H., Lal, C. S., … Pal, B. (2016).[12] Gupta, P., Bobhate, P. S., & Shrivastava, S. R. (2011).[13] Ghosh, A., Biswas, S., Mondal, K., Haldar, M., & Biswas, S. (2015).[18]

CONCLUSION

This study concluded that the vast majority of respondents engaged self-medication, which was attributed in large part to the attitudes of the respondents and, more importantly, to the pharmacists. The Government and the Medical colleges should also motivate the community for visiting the clinic anytime when they feel any symptoms.

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