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Community Medicine

SELF-MEDICATION PRACTICES AND ASSOCIATED FACTORS IN AN URBAN AREA OF TAMIL NADU, INDIA

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ABSTRACT

BACKGROUND: World Health Organization (WHO) has laid emphasis on self-medication as one of the major public health concern as the practice of self-medication has increased dramatically in recent years. So the present study was designed to study the prevalence and practice of self-medication practices in an urban area of Tamil Nadu, India.

MATERIALS AND METHODS: A cross sectional study was conducted in November and December 2019 and data was collected by personal interviews using pretested questionnaires. The study was conducted in an urban area in the city of Coimbatore in Tamil Nadu. Data were collected from 242 persons and analyzed using SPSS ver.21.

RESULTS: The prevalence of self-medication was 83.1%. It was found to be practiced more among the young (P = 0.036). Graduates and post graduates practiced self-medication when compared to others (P = 0.020). Self-medication was practiced commonly for Common cold (55.8%) and fever (54.1%). Paracetamol and cough syrups were the most commonly used class of drugs.

CONCLUSION: The prevalence of self-medication was found to be high. Drugs, especially antimicrobials were not taken for the proper length of time.

KEYWORDS : Self-medication, Urban Area, India

INTRODUCTION:

World Health Organization (WHO) has laid emphasis on self-medication as one of the major public health concern. The practice of self-medication has increased dramatically in the last few decades especially in the developing countries. [1] There are wide variations in the prevalence of self-medication in various studies reported in India ranging from 31% [2] to 71% [3]. Also, there has been a constant increase in the prevalence of self-medication in recent years and the pattern and extent of self-medication varies according to cultural, social and educational influences. [4]

Inappropriate and inaccurate use of antibiotic drugs will result in emergence of multi drug resistant pathogens. [5] It is also associated with risks such as misdiagnosis, use of excessive drug dosage and wastage of resources. Increased multimedia advertisements have enhanced consumer awareness about the availability of a particular product. [6]

Therefore, self-medication and its patterns seems to be a field in which information is scarce and only a very little information has been available about its major determinants especially in developing countries. So the present study was designed to study the prevalence of self-medication and its pattern in an urban area of Coimbatore, Tamil Nadu, India.

MATERIALS AND METHODS:

Study Design:

The study was of cross sectional design and conducted during the months of November and December 2019. The urban field practice area of the Department of Community Medicine, Government Medical College and ESI Hospital, Coimbatore was selected. House listing was done in the selected urban colony and every fifth house was included in the study. The total sample size is 242.

Data Collection:

Data was collected by personal interviews by trained personnel using pre tested questionnaire. Study subjects were the elder most members in each of the selected house available at the time of visit. If any of the members of the selected house cannot be reached after three consecutive visits, the next house was included in the study.

Registered medical practitioner (RMP), pharmacist, nurse and paramedic personnel were excluded along with those who refused to participate in the study.

Ethical Issues:

Resident Welfare Association of the selected urban colony was contacted and their permission was obtained to conduct the study after explaining the purpose of the study. Written informed consent was obtained from the study participants and thumb imprint was obtained from illiterates after assuring full confidentiality. Then they were personally interviewed.

Analysis:

Data were analyzed using SPSS ver.21. Chi square test was used for drawing statistical inferences and *P* values of < 0.05 were considered significant.

RESULTS:

Among 242 study participants, 130 (53.7%) were males and 85 (35.1%) were between 30-39 years of age and 220 (90.9%) belong to Hindu religion. On educational background, 151 (62.4%) were graduates and 40 (16.5%) were post graduates. According to revised Kuppusamy's socio-economic classification 2018, 154 (63.6%) belong to upper middle socio-economic class.

Of 242 study participants, 201 (83.1%) people took medicines without doctor's prescription and among them 174 (86.5%) preferred allopathic medicines. There was no significant association between self-medication and gender (*P* = 0.182), but there was a significant association with age (*P* = 0.036) with younger age groups practicing self-medication more than older age group persons. Significant association was also found with educational statuses of the study participants (*P* = 0.020), with graduates and post graduates practicing self-medication more than others. But there was no association with religion (*P* = 0.566) and socio-economic status (P = 0.213). [Table 1]

Table 1 Distribution Of Study Subjects According To Self Medication Practices (n = 242)

S. no.	Socio-demographic factors		Self-medication		P-value
			Present (%)	Absent (%)	
1	Age in completed years	< 20	4 (66.7)	2 (33.3)	0.036
		20 – 29	45 (83.3)	9 (16.7)	
		30 – 39	75 (88.2)	10 (11.8)	
		40 – 49	50 (83.3)	10 (16.7)	
		50 – 59	25 (75.7)	8 (24.3)	
		≥ 60	2 (50)	2 (50)	
2	Sex	Male	115 (88.5)	15 (11.5)	0.082
		Female	86 (76.8)	26 (23.2)	
3	Religion	Hindu	184 (83.6)	36 (16.4)	0.566
		Islam	11 (84.6)	2 (15.4)	
		Christian	6 (67.3)	3 (33.3)	
4	Educational status	Illiterate	2 (40)	3 (60)	0.020
		Primary school	1 (33.3)	2 (66.7)	
		Middle school	1 (25)	3 (75)	
		High school	25 (78.1)	7 (21.9)	
		Graduate	136 (90.1)	15 (9.9)	
		Post graduate	36 (90)	4 (10)	
5	Socio economic class (Revised Kuppuswamy	Upper	61 (79.2)	16 (21.8)	0.213
		Upper middle	132 (85.7)	22 (14.3)	
		Lower middle	6 (75)	2 (25)	

	classification, 2018)	Upper lower	1 (50)	1 (50)	
		Lower	1 (100)	0 (0)	

Regarding the sources of information for self-medication, majority 102 (42.1%) started using it from their own past experience. Cough 135 (55.8%) was the most common symptom for using self-medication followed by fever 131 (54.1%). Paracetamol was the most commonly used drug followed by cough syrups. [Table 2]

Table 2 Distribution Of Study Subjects According To Self-medication Practices (n=242)

S no.	Self-medication practices		Number (%)
1	Sources of information*	My own experience	102 (42.1)
		Doctor's old prescription	96 (39.7)
		Recommendation by chemists	78 (32.2)
		Opinion of family members	78 (32.2)
		Opinion of friends	44 (18.2)
		Advertisement	26 (10.7)
		Recommendation by net citizens	12 (04.9)
2	Common ailments for using self-medication*	Common cold	135 (55.8)
		Fever	131 (54.1)
		Runny nose	93 (38.4)
		Aches and pains	91 (37.6)
		Sore throat	57 (23.6)
		Nasal congestion	53 (21.9)
		Diarrhea	33 (13.6)
		Vomiting	29 (11.9)
		Skin wounds	25 (10.3)
3	Drugs used*	Paracetamol	167 (69.1)
		Cough syrups	129 (53.3)
		Digene	77 (31.8)
		Cetrizine	55 (22.7)
		Antibiotics	52 (21.5)
		Dependal	45 (18.6)
		Rantac	33 (13.6)

*Multiple responses

Antibiotics were used by 52 (21.5%) participants and among them 38 (73.1%) changed the dose of antibiotic during the course of self treatment. About, 14 (26.9%) switched antibiotics and the availability of cheaper alternative antibiotic was the main reason for switching antibiotics and 40 (76.9%) reported they stopped taking antibiotic as soon as the symptom got relieved without completing the entire course of treatment.

DISCUSSION:

The prevalence of self-medication was found to be 83.1% in the present study. Self-medication practices were significantly more in younger age group persons and also among graduates. Similar studies carried out in India showed the prevalence of self medication as 37% in urban areas and 17% in rural areas. [8] There was wide variation in prevalence of self-medication ranging from 12.7% to 95% in other developing countries. [9, 10] Due to the different socioeconomic profiles and demographic characteristics of the populations studied, it was difficult to compare the results. The common sources of information regarding self-medication in the present study were found to one's own personal experience and doctors' old prescription. Similar results were obtained in a study conducted by James H et al. [11]

The most common reasons for self-medication in the present study were found to be common cold (61.6%) and fever (51.8%). Paracetamol and cough syrups were the most commonly used class of drugs, which is similar to a study done in Ahmadabad, India. [12] In concordance with previous results, our results also indicate that antimicrobials were not the commonly used for self-medication, and were mostly obtained on prescription and among those who use antibiotics; most of them did not take it for a complete course.

The present study was conducted in an urban background having relatively better socio-economic and educational conditions compared with the rest of India. The usage of self-medication was asked for the previous three months in which recall bias may be present. These may be considered as limitations of this study.

CONCLUSION:

The prevalence of self-medication was found to be high at 83.1% in this study. Paracetamol and Cough syrups were the drugs most commonly used for self-medication. Fever and common cold were the most common reasons. Drugs especially antimicrobials were not taken for the proper length of time.

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